



जवाहरलाल नेहरू  
जन्मशती

JAWAHARLAL NEHRU  
CENTENARY

1889 *JN* 1989



# DRAFT EIGHTH FIVE YEAR PLAN SIKKIM (1990-95)



PLANNING & DEVELOPMENT DEPARTMENT  
GOVERNMENT OF SIKKIM  
GANGTOK



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DOC. No. 5967  
~~Doc. No. 5967~~

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## CHAPTER I

# Planned Development - An Overview

1. The commencement of the Eighth Five Year Plan in Sikkim, will coincide with the completion of fifteen years of Sikkim becoming an honoured member of the family of States of the Indian Union. This would also mark the completion of three-five year development Plans in the State. During this period the State has witnessed, a multi-dimensional transformation, covering all aspects of social and economic development. Major strides have been recorded, in respect of practically all sectors of the economy and the gap between the rest of the country and Sikkim as regards economic development has been to a very considerable extent narrowed. The standards of living reflected in terms of per capita income, production of primary as well as secondary goods, spread of health and education services widening of the network of communication, generation of power etc. have all shown significant increases during this period.

2. There has been an enormous growth in the plan outlays and while the Seventh Plan would have witnessed an expenditure of approximately Rs. 280 crores during the period 1985-90, the corresponding figures for the Sixth Plan (1980-85) was Rs. 122 crores and that for the Fifth Plan (1976-80) was Rs. 83 crores. The outlay for power development has shown the most significant rise, from a little less than Rs. 4 crores during the period 1976-80 to Rs. 12 crores in the period 1980-85 and almost Rs. 35 crores during the Seventh Plan period. Education is another area where there has been a dramatic rise from Rs. 6.5 crores during the Fifth Plan to Rs. 8.3 crores during the Sixth Plan and over Rs. 28 crores during the Seventh Plan. Agriculture and allied services outlays increased from Rs. 11 crores in the Fifth Plan to Rs. 21 crores in the Sixth Plan and almost Rs. 35 crores during the Seventh Plan. The road transport sector also received priority attention with Rs. 26 crores during the Fifth Plan to Rs. 29 crores during the Sixth Plan and almost Rs. 45 crores in the Seventh Plan. If one looks at the annual expenditure, the power sector which consumed Rs. 1.28 crores in 1976-77

would have received almost Rs. 14 crores in 1989-90. Similarly the Road Transport Sector received Rs. 3.58 crores in 1976-77 and the figure has shot up to Rs. 13.90 crores in 1989-90. The expenditure in education has similarly leap frogged from about Rs. 1 crore in 1976-77 to Rs. 11.25 crores in 1989-90.

3. The per capita income of the State has shown a dramatic rise from Rs. 1,580/- in 1980-81 to Rs. 3,470 in 1986-87 at current prices. The State domestic product at current prices has shot up from approximately Rs. 50 crores in 1980-81 to Rs. 135 crores in 1986-87. The contribution of agriculture and allied sector to the State domestic product has shown a decline from about 50 percent in 1980-81 to around 47 percent in 1986-87 while on the other hand, both the secondary and tertiary sectors have shown substantial increase. Agricultural production, has consistently increased in spite of the limited availability of land and the difficulties in mechanisation of agriculture. While rice production has gone up from 10,000 tonnes in 1975-76 to nearly 19,000 tonnes in 1988-89, maize has shot up from 16,000 tonnes to 57,000 tonnes during the same period. Similar increases have been noticed in the production of cash crops such as cardamom, ginger, fruits as well as in the area of oil seeds. Due to special measures taken in regard to pulses and oil seeds the production has reached 13,000 tonnes and 13,500 tonnes respectively in 1988-89 compared to negligible production of these items in 1975-76. Similarly, potato production has shot up from a mere 8,000 tonnes in 1975-76 to 32,000 tonnes in 1988-89.

4. In terms of industrial development the State has witnessed a dramatic transformation particularly in the Seventh Plan with the establishment of a Vanaspati plant, a modern brewery, an electronic unit to produce discrete semi conductors, expansion of the watch making unit, a heavy density polyethylene bag making unit, a bottling plant, as well as a plant for manufacturing piller proof caps. The other small units for manufacturing a wide variety of products, automobile repair units, service

industries, printing presses etc. have all come up in the State during the period. The value of industrial production is estimated to have gone up from about Rs.1 crore in 1975-76 to Rs. 17 crores upto 1978-88.

5. Power output has recorded consistent increases and so the road mileage in the State with almost all villages with a population of 200 and above having access to the road network. In the Health sector the State has now a well established infrastructure with Primary Health Sub-Centres for every 3,000 persons and Primary Health Centres for every 20,000 persons. District level hospitals as well as a State Referral hospital has been established and programmes in respect of immunisation, combating communicable diseases, mal nutrition etc. have received specific attention. The life expectancy in the State has gone upto 61 years and infant mortality is estimated to have declined from 120 in 1976-77 to a little above 90 per thousand in the terminal years of the Seventh Plan.

6. In the field of education almost all habitations have been covered and except in a few cases children have access to primary education within a radius of approximately 2 Kms. The enrolment in schools has shown substantial and consistent increases and nearly 85,000 children go to the primary and pre primary schools as compared to hardly 20,000 in 1975-76. The enrolment in middle schools, senior secondary schools and in the college as well, have shown remarkable increases between the above mentioned years. During the Seventh Plan very considerable attention has been paid to improve the quality of education particularly at the primary and junior high school levels by providing necessary equipment, teaching material and training of teachers.

7. In the field of rural development apart from programmes calculated to improve the living standards of people by providing employment opportunities, exceptionally high progress has been achieved in the field of rural water supply and rural electrification. In respect of rural water supply by the end of the Seventh Plan, out of the 440 Revenue blocks all but 116 blocks would have been fully covered with potable water supply and even these 116 villages would have been partially covered.

Rural electrification has now been spread to 333 revenue blocks and by the middle of the Eighth Plan the remaining blocks will also be covered.

8. Specific programmes for the welfare of scheduled castes and scheduled tribes have been implemented with a view to ensuring that these segments of the community are provided full benefits from the development effort and special attention is paid to these segments especially in the areas of education, housing, health coverage and programmes tailored to provide supplementary income to these categories of people.

9. The strategy followed during the Seventh Plan was to concentrate on the build up of infrastructure in the State, so that the serious deficiencies in this area are removed at the earliest. It was also considered that with improvements in the infrastructure the State will be in a position to expand rapidly in the area of industrialisation as also provide the much needed basic amenities to the rural population. Top-most priority was therefore accorded to power development followed by the road transport sector. Agricultural improvements come next in priority followed by spread of education and rural development programmes. Significant progress has already been achieved in all these areas and provides the necessary base for attempting a much faster rate of growth of the economy during the Eighth Plan. With the increasing consciousness of the need to preserve the ecological balance, the Seventh Plan also paid considerable attention to programmes relating to afforestation, conservation of environment and catchment area treatment. The fact that major river systems such as the Rangit and the Tista originate in the State and the conservation of the catchment areas is of vital importance to ensuring adequate but controlled flow of water for the power projects, as also to avoid soil instability, soil run off etc. was taken fully into account.

10. For the first time, the importance of Science and Technology in improving standards of performance in all sectors and bringing about increases in production by application of science and technology to the various programmes of development was given due recognition during the Seventh Plan.

11. On the basis of a very close review of the performance of the economy during the Sixth and Seventh Plan periods, the broad strategy that should be followed during the Eighth Plan was finalised in terms of the following objectives :-

(a) Since already it is estimated that the economy has been growing at around 8 percent per annum during the Seventh Plan period it was felt that a much higher rate of growth of approximately 10 percent should be aimed at during the Eighth Plan and for this purpose the kind of forward and backward linkage, organisational improvements, material and manpower inputs should be identified and provided for.

(b) An improvement in the efficiency with which the capital was being utilised was also considered essential and measures for bringing about reduction in costs, avoidance of time and cost overruns, improvement in the efficiency of use of energy and upgradation of technology and emphasis on adequate levels of the returns are to be given due importance.

(c) Improvement in the science and technology content in development plans, with a view to adopt new processes, new methods etc. to bring about overall improvement in performance and achieve better and more cost effective solutions.

(d) Creation of adequate employment opportunities particularly for the educated unemployed.

(e) An improvement in the quality of life by paying special attention to the spread of education and health services and with specific attention to control in the rate of growth of population.

(f) Special programmes calculated to provide supplementary income in the rural areas.

(g) Lastly preservation of the environment and the ecological balance.

12. With the above objectives in mind the programme content in respect of each of the sectors has been finalised with clearly identified physical targets to be achieved. Continuing programmes have been reviewed from the point of view of their effectiveness and utility as also their performance in the past. New programmes to be included in the plan have been subjected to vigorous scrutiny from the point of view of

their essentiality, viability and the returns that can be expected from the programmes, as also their employment generation capability.

13. Given the status of economic development in the State, the Power Sector will have to continue to get priority primarily because of the very substantial growth in demand and the necessity to see that the projects already taken up in the Seventh Plan are completed as quickly as possible. Only one new project is envisaged during the second part of the Eighth Plan namely Rothangchu, the feasibility of which has been established. The need for arrangements in regard to transmission and distribution have been given due recognition and so also the objective of covering the entire State under the programme of rural electrification.

14. As regards the Road Sector, given the fact that Sikkim depends exclusively on the road as a means of communication, priority has been given to upgradation and removal of deficiencies and completion of on going projects. New road construction will be taken up only in the most essential areas.

15. While there has been a massive upsurge in programmes relating to education, the Eighth Plan will concentrate on building the infrastructure in terms of school buildings, upgradation of higher education and most importantly build up of technical manpower, backed up by long term technical manpower planning. The Education Department has been made specifically responsible for technical education for the first time in Sikkim.

16. While there has been a spread of health services, attention to provision of equipment, upgradation of the facilities in the district hospitals and more importantly building up a proper Central Referral Hospital need urgent attention and will be taken care of in the Eighth Plan. Specific attention to the reduction of birth rate and much better performance on the family planning front is called for. Man power planning with a view to see that the hospitals, PHCs and PHSCs are adequately staffed, will also receive due attention in the Eighth Plan.

17. As regards industrialisation very substantial growth is envisaged during the Eighth Plan in terms of expansion of the electronic industry, food processing industry and small and tiny industries with accent on employment

generation. Encouragement to the private sector entrepreneurial development and specific attention to the modernising of the traditional carpet weaving and wood working industries will be taken up with adequate attention to marketing of the products.

18. Agriculture and Animal Husbandry programmes will concentrate on introduction of new technologies such as glass house cultivation, embryo transfer technology, remote sensing applications and better coordination with the ICAR. Introduction of new fruits and vegetables such as straw berries, avacadoes, mushroom cultivation, efforts to improve yields of cardamom, rejuvenation of apples, specific attention to oil seeds such as sun flower and substantial growth in the production of flowers and orchids particularly for export are also contemplated during the Eighth Plan.

19. In the field of Forestry, Land Use and Environmental Protection substantial step up in outlays are proposed to take care of ecologically fragile zones, a much larger afforestation programme, specific attention to wild life conservation, protection of existing reserve forests, integrated measures for soil conservation, implementation of the Air and Water Pollution Act and specific attention to water bodies in the higher altitudes which has started suffering from environmental degradation. Creation of a zoological park in Gangtok is also envisaged.

20. Urban development has not so far received the required attention in Sikkim. On the basis of a master plan prepared for Gangtok, a Gangtok Development Authority is proposed to be created to take an integrated and multi disciplinary view of urban development with proper zoning regulation, building bye laws and creation of green belts and satellite townships. Provision of adequate water supply, drainage and sewerage and traffic management will also be taken care of and all efforts made to see that the smaller towns develop in a planned manner so that the problem of urban congestion and unplanned growth are avoided.

21. In the case of rural development while the major emphasis will be on rural water supply and improvement of living standard through the implementation of poverty alleviation programme, the introduction of the Panchayat Raj System will be a significant new development. Democratic decentralisation with

the creation of zilla parishads, greater delegation of powers to Gram Panchayats and implementation of Jawahar Rojgar Yojana are all envisaged during the Plan.

22. In the field of Science and Technology, while continuing programmes relating to Science education and awareness will be carried, establishment of a tissue culture laboratory, a fullfledged remote sensing application centre and a facility of investigation and treatment of iodine deficiency disorders is planned.

23. Tourism will be given a very strong boost during the Eighth Plan. With the possibility of relaxation in respect of entry of foreigners into Sikkim and opening of new areas a vastly increased tourist traffic is expected and the necessary infrastructure has to be provided and entertainment facilities substantially increased.

24. In the formulation of the Eighth Plan district level planning has been given due importance. Given the size of the State and the population it was not necessary to create a separate district level machinery for the purpose of preparing district wise development plans. However in close consultation with all the district level functionaries and the active involvement of the Collectors, plans have been prepared for each of the districts concentrating on sectors such as Agriculture, Animal Husbandry, Forestry, Primary Health and Primary Education, Fisheries and Minor Irrigation, Rural Development and Welfare of Scheduled Castes and Scheduled Tribes. The economic status, the resources endowment, and trends of growth in each of the districts were studied and the particular areas of emphasis that needs to be made in respect of each of the districts were identified. On this basis allocations that need to be made for each of the districts and the physical achievement that should be laid down were also finalised. Basically until the district level panchayat bodies are created the existing official machinery will continue to be the implementing agency, with the Collectors playing the role of a supervisory and coordinating authority. Regular monitoring of performance both as regards timely completion of projects and achievements of targets as also the quality of work is expected to be undertaken by the Collectors and regular reports submitted to the headquarters.

25. The overall outlay proposed for the Eighth Plan amounts to Rs.532.85 crores. This would mean an increase of approximately 100 percent over the expenditure during the Seventh Plan. In certain sectors such as Health, Industries, Forestry etc. the outlay proposed is nearly 200 percent more than the expenditure during the Seventh Plan but these sectors need much greater attention than before and the programme proposed fully justify the proposed financial outlay.

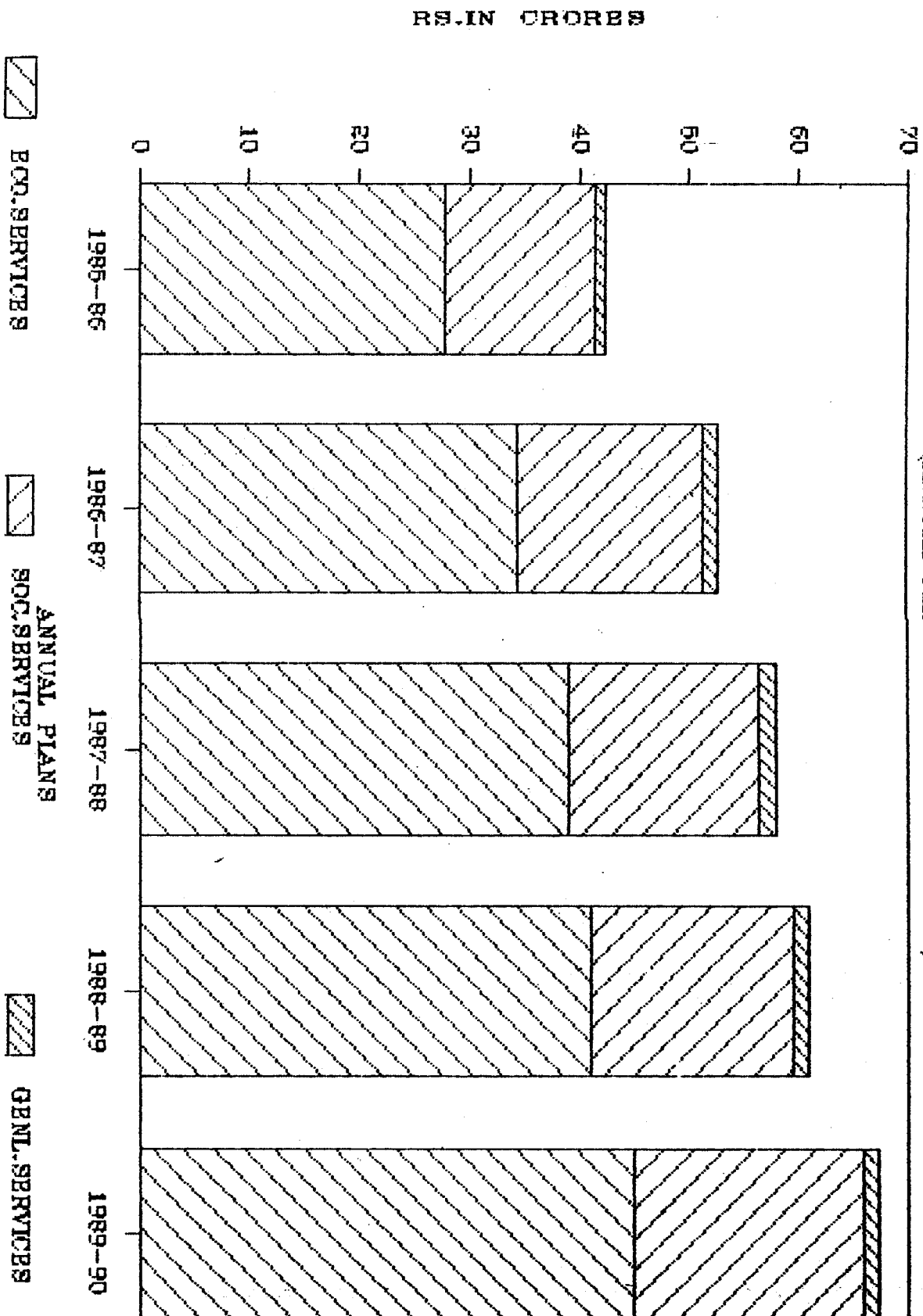
26. The Eighth Plan has been conceived as the main instrument for achieving significant leap forward by the people of Sikkim in terms of higher living standards and better quality of life, ensuring equitable distribution of economic

opportunities and creating adequate employment opportunities particularly for the educated. Around development, with specific attention to the more disadvantaged segments of the community and preservation of the environment and ecological balance have been considered matters calling for urgent attention. For a people who have perfected the art of living in harmony and peace and who have in their anxiety to march forward, not allowed their rich cultural heritage to be diluted, the plan provides both an opportunity and a challenge to carry themselves forward into the Twenty First Century, by using the opportunities provided by this age of technology.

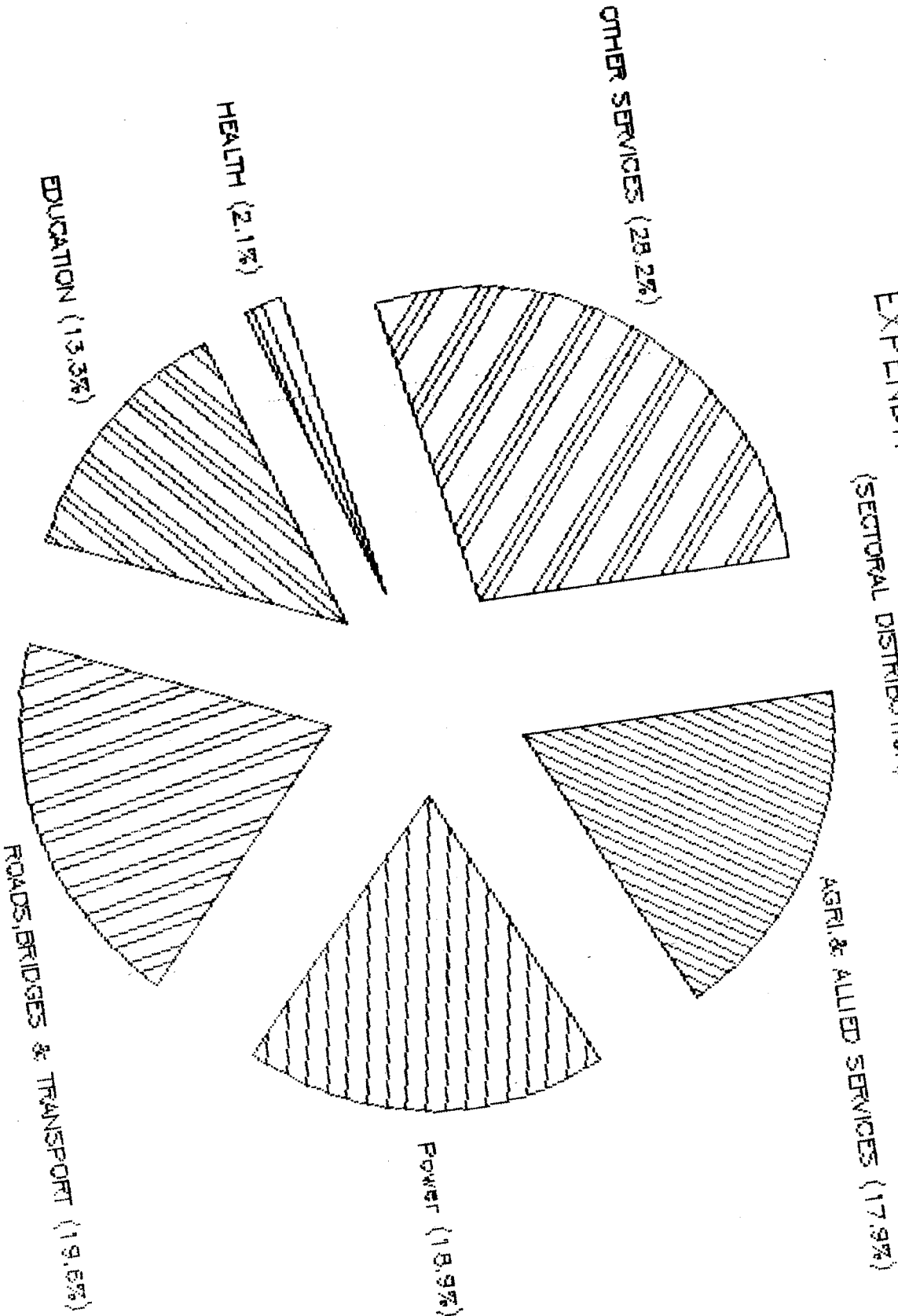


# EXPENDITURE DURING SEVENTH PLAN

(ANNUAL PLANS 1986-86 TO 1989-90)



EXPENDITURE DURING SEVENTH PLAN  
(SECTORAL DISTRIBUTION)



DRAFT EIGHTH FIVE YEAR PLAN (1990-95) & ANNUAL PLAN 1990-91  
HEADS OF DEVELOPMENT : OUTLAY & EXPENDITURE STATEMENT : GN 1  
(Rs. in lakhs)

Code No.	Head/Sub-Head of Development	Seventh	Actual	Appro-	Proposed		Outlay	
		Five Year Plan 1985-90 Agreed to Outlay 1988-89	Expendi- ture 1985-86 to 1988-89	ved Outlay 1989-90	Eighth Five Year Plan 1990-95	of which capital content	Annual Plan 1990-91	Of which capital content
0	1	2	3	4	5	6	7	8
ECONOMIC SERVICES								
I. AGRICULTURE & ALLIED SERVICES:								
101 240100	Crops Husbandry	1404.00	1175.66	358.25	2230.00	295.00	389.00	44.00
240200	Soil & Water Conser- vation	1000.00	984.73	203.25	1950.00	—	300.00	—
240300	Animal Husbandry	931.00	663.16	204.25	1595.00	245.00	247.00	46.00
240400	Dairy Development	75.00	71.71	23.75	110.00	5.00	17.00	1.00
240500	Fisheries	120.00	66.06	19.00	235.00	127.00	50.00	33.50
240600	Forestry & Wild life	950.00	703.00	223.25	2880.00	300.00	400.00	25.00
240700	Plantations							
240800	Food, Storage & Warehousing	45.00	37.38	11.50	75.00	75.00	12.00	12.00
241500	Agricultural Research & Education	65.00	63.08	33.25	170.00	40.00	35.00	10.00
241600	Investment in Agri. Fin. Institutions	—	—	—	—	—	—	—
243500	Other Agricultural Programmes	—	—	—	—	—	—	—
243501	(a) Marketing & Quality Control	60.00	37.69	14.25	75.00	25.00	15.00	4.00
243560	(b) Others ( to be specified)	—	—	—	—	—	—	—
242500	Co-operation	200.00	160.51	47.50	365.00	111.50	58.00	21.00
101 000000	Total (I)	4850.00	3962.98	1138.25	9685.00	1223.50	1523.00	196.50
II. RURAL DEVELOPMENT								
102 250100	SPECIAL PROGRAMMES FOR RURAL DEVELOP- MENT							
250101	(a) Integrated Rural Development Programme (IRDP)	60.00	81.40	22.00	150.00	—	30.00	—
250102	(b) Drought Prone Area Programme (DPAP)	—	—	—	—	—	—	—
250104	(c) Integrated Rural Energy Programme (IREP)	50.00	28.53	15.00	100.00	—	20.00	—
	(d) Others (to be specified)	—	—	—	—	—	—	—

## DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN 1990-91

## HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE

Statement GN-1

(Rs. in Lakhs)

Code No.	Head/Sub-Head of Development	Seventh Plan Outlay (1985-90)	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which Capital content	Annual Plan 1990-91 Proposed Outlay	Of which capital content
0	1	2	3	4	5	6	7	8
120 250500	RURAL EMPLOYMENT							
250501 (a)	National Programme like National Rural Employment Programme (NREP)	90.00	98.75	—	—	—	—	—
	(b) Jawahar Rojgar Yojana	—	—	50.00	500.00	—	100.00	—
250560	(c) Other Programme (like Employment Guarantee Schemes etc. (to be specified))	—	—	—	—	—	—	—
102 250600	Land Reforms	120.00	93.26	22.75	55.00	25.00	9.00	4.00
251500	Other Rural Development Programme including Community Development and Panchayats	75.00	89.38	13.25	800.00	20.00	174.00	20.00
102 000000	Total (II)	397.00	391.32	123.00	1605.00	45.00	333.00	24.00
103 000000	III SPECIAL AREA PROGRAMMES							
	IV IRRIGATION AND FLOOD CONTROL							
104 270100	Major and Medium Irrigation	—	—	—	—	—	—	—
270200	Minor Irrigation	1000.00	692.78	190.00	1065.00	895.00	190.00	160.00
270500	Command Area Development	—	—	—	—	—	—	—
271100	Flood Control Project (including anti-sea crosion etc.)	105.00	76.94	23.75	150.00	150.00	25.00	25.00
104 000000	Total (IV)	1105.00	769.72	213.75	1215.00	1045.00	215.00	185.00
	V ENERGY							
105 280100	Power	3894.00	4090.75	1301.50	9360.00	9210.00	1870.00	1860.00
281000	Non-conventional sources of Energy	100.00	69.15	28.50	131.50	—	22.00	—
105 000000	Total V	3994.00	4159.90	1330.00	9491.50	9210.00	1892.00	1860.00
	VI INDUSTRY & MINERALS							
106 285100	Villages & Small Industries	330.00	291.17	90.25	912.50	95.00	175.00	45.00

## DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN - 1990 - 91 Statement GN -1

## HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE

(Rs. in lakhs)

Code No.	Head/Sub-Head of Development	Seventh	Actual	Approved	Proposed		Outlay	
		Five Year Plan (1985-90) Agreed to Outlay 1988-89	Expenditure 1985-86 to 1988-89	Outlay 1989-90	Eighth Five Year Plan 1990-95	of which capital content	Annual Plan 1990-91	of which capital content
0	1	2	3	4	5	6	7	8
285200	Industries (other than village & small Industries)	370.00	443.00	143.50	1975.00	1950.00	541.00	535.00
285302	Mining	150.00	106.25	17.00	175.00	80.00	14.50	1.00
106 000000	Total (VI)	850.00	840.42	250.75	3062.50	2125.00	730.50	581.00
	VII TRANSPORT:							
107 305100	Ports & light House	—						
305200	Shipping	—			NOT - APPLICABLE			
305300	Civil Aviation	—						
305400	Roads & Bridges	3740.00	3615.57	1064.00	6390.00	6240.00	1302.00	1279.00
305500	Road Transport	728.00	679.56	209.00	2183.00	2063.00	366.00	349.00
305600	Inland Water Transport	—						
307500	Other Transport Service (to be specified)							
	Helicopter Services	—	50.00	47.50	—	—	—	—
107 000000	Total (VII)	4468.00	4345.13	1320.50	8573.00	8303.00	1668.00	1628.00
108 000000	VIII COMMUNICATION							
109 340000	IX SCIENCE TECHNOLOGY & ENVIRONMENT							
342500	Scientific Research (including S&T)	22.00	17.00	9.50	199.50	40.00	31.00	10.00
343500	Ecology & Environment	58.00	33.07	21.00	295.00	—	45.00	—
109 000000	Total IX	80.00	50.07	30.50	494.50	40.00	76.00	10.00
	X GENERAL ECONOMIC SERVICES :							
110 345100	Sectt. Economic Services	76.00	57.52	26.50	280.00	—	54.00	—
345200	Tourism	200.00	164.56	57.00	920.00	640.00	133.00	93.00
345400	Survey & Statistics	45.00	25.51	11.50	117.50	20.00	18.00	3.00
345600	Civil Supplies	55.00	38.38	14.25	56.00	—	8.50	3.75
347500	Other General Economic Service							
	(a) Weight & Measures	22.00	17.50	3.75	22.00	—	4.00	—
	(b) Others (to be specified)	—						
110 000000	Total (X)	398.00	303.47	113.00	1355.50	660.00	211.50	99.75
	Total (A)-Economic Services	16142.00	14823.01	4519.75	35522.00	22651.50	6655.00	4584.25

## DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN 1990-91

HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE Statement GN-1  
(Rs. in Lakhs)

Code No.	Head/Sub-Head of Development	Seventh Plan Outlay (1985-90)	Expenditure 1985-86 to 88-99	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which Capital content	Annual Plan 1990-91 Proposed Outlay	Of which capital content
0	1	2	3	4	5	6	7	8
<b>XI. SOCIAL SERVICES EDUCATION, SPORTS, ART &amp; CULTURE :</b>								
221	220200	2500.00	2853.98	940.50	5085.00	1650.00	838.00	245.00
	220300	—	—	—	700.00	100.00	92.00	75.00
	220400	140.00	108.97	42.75	515.00	275.00	60.00	15.00
	220500	160.00	202.43	85.50	507.50	200.00	80.00	25.00
221	000000	2800.00	3165.38	1068.75	6807.50	2225.00	1070.00	360.00
<b>XII. HEALTH :</b>								
222	221000	581.00	419.66	166.25	2797.50	2065.50	360.00	220.00
<b>XIII. WATER SUPPLY, HOUSING &amp; URBAN DEVELOPMENT:</b>								
223	221500	1800.00	1889.47	579.50	2860.00	2265.00	695.00	675.00
	221600	460.00	309.21	92.25	836.00	836.00	154.00	154.00
	221700	150.00	192.56	57.00	1000.00	750.00	172.00	132.00
	Total : XIII	2410.00	2391.24	728.75	4696.00	3851.00	1021.00	961.00
224	222000	47.00	85.96	28.50	89.00	—	16.00	—
225	222500	125.00	119.60	35.25	475.00	—	87.00	—
226	223000							
	(a) Labour & Labour Welfare	40.00	—	6.75	—	—	—	—

## DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN 1990-91

HEADS OF DEVELOPMENT :                      OUTLAY AND EXPENDITURE                      Statement GN-1  
(Rs. in Lakhs)

Code No.	Head/Sub-Head of Development	Seventh Plan Outlay (1985-90)	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which Capital content	Annual Plan 1990-91 Proposed Outlay	Of which capital content
0	1	2	3	4	5	6	7	8
	(b) Special Employment Schemes	—	—	—	—	—	—	—
	Total (XVI)	40.00	—	6.75	—	—	—	—
	XVII SOCIAL WELFARE & NUTRITION							
227	223500 Social Security and Welfare	70.00	33.27	19.00	151.00	15.20	23.00	—
	223600 Nutrition	270.00	170.00	42.75	604.00	—	91.00	—
	Total XVII	340.00	203.27	61.75	755.00	15.20	114.00	—
228	225200 XVIII. OTHER SOCIAL SERVICES							
200	000000 Total (B)-SOCIAL SERVICES	6343.00	6385.11	2096.00	15620.00	8156.70	2668.00	1541.00
	XIX GENERAL SERVICES :							
342	205600 Jails (shown under Public Works)							
	205800 Stationery & Printing	27.00	43.81	6.75	93.00	10.00	48.50	5.00
	205900 Public Works	488.00	464.87	139.50	1050.00	1010.00	215.00	212.00
	207000 Others (to be specified)							
300	000000 Total (C) General Services	515.00	508.68	146.25	1143.00	1020.00	263.50	217.00
999	999999 GRAND TOTAL (A+B+C)	23000.00	21716.80	6762.00	52285.00	31828.20	9586.50	6342.25

Excluding provision of Rs. 1000.00 Lakhs under Power Finance Corporation.

## CHAPTER II

**Agriculture**

1. Even though there has been a perceptible decline in the percentage of population of Sikkim that depends on agriculture, and the contribution of agriculture to the State's domestic product has also shown a decline, this sector continues to occupy overwhelming importance in the State's economy. The majority of the State's population still depend upon agriculture and related activities for their livelihood and will continue to do so for the foreseeable future. The contribution of agriculture to the State's domestic product will also be of overwhelming importance. This sector, therefore, will have to receive priority attention as far as planned economic development is concerned and every effort made to upgrade technology, productivity standards and carry through a process of modernisation in order to see that the rural economy as a whole attains higher levels of prosperity.

2. Given the geographical situation and the terrain conditions in Sikkim not more than 15 percent of the area is available for cultivation. With the increasing population, the pressure on land has continued to increase while the per capita availability of land has continued to decline. This calls for strategies which while enhancing the productivity of land, also ensures maximum returns from the crops grown in the area. The land management will therefore have to concentrate on improving the productivity and yield patterns, application of a package of inputs calculated to enhance the fertility of land, selection of those crops which are best suited for the agro climatic conditions of the State and whose productivity can be best enhanced while the returns are comparatively attractive. Further the fact that the terrain conditions do not permit a great deal of mechanisation in agriculture practices will also have to be borne in mind.

3. Agricultural development will also have to be combined and coordinated with the spread of irrigation facilities, measures for control of

soil erosion, etc. as well as correction of adverse soil characteristics and overall improvement in farm management practices including post harvest technologies. In those areas, where drier conditions prevail adequate attention to dry land farming will have to be paid.

4. Given this scenario while we can continue to pay attention to the cultivation of foodgrains, the aim cannot be to achieve self sufficiency in this area. On the other hand, much more emphasis will have to be on cash and commercial crops, taking advantage of the favourable agro climatic conditions in the State. Attention will have to be therefore on cultivation of cardamom, ginger, turmeric, a variety of fruits, vegetables and exotic crops such as avocado, strawberry, mushrooms etc. These crops not only have a ready market within the State but are in demand elsewhere in the country and are capable of bearing the somewhat high transportation costs. It will also be the endeavour of the State to give a very strong boost to floriculture with particular attention to orchids as there is a ready and growing market for this type of products.

5. With this background and bearing in mind the progress recorded by the State in the field of agriculture in the past two plans the specific strategies to be pursued during the Eighth Plan have been identified as follows :-

(i) Bring about substantial increases in the yields of both foodgrains as well as commercial crops.

(ii) Evolve and adopt a suitable package of practices to make farming much more remunerative than at the moment, concentrating on efforts to obtain maximum production and income per unit area of land and per cropping season.

(iii) Specific attention to cash and commercial crops such as ginger, cardamom, fruits and vegetables, in order to very substantially increase their yield patterns and quantum of production.



- (iv) Vigorously promote the consumption of fertilizers in respect of the crops so that the present low standards are substantially improved to bring the consumption pattern nearer the All India Levels.
- (v) Promoting in a big way floriculture with specific attention to orchids with adequate attention to marketing aspects.
- (vi) Introduce modern technologies such as glass house cultivation particularly as regard floriculture and production of vegetables.
- (vii) Lastly bring about a full measure of co-ordination between agricultural activities, research and development, irrigation and soil conservation programmes.

6. A brief review of the achievement in the agricultural sector during the past three plans is given below :—

Programme	Fifth plan	Sixth plan	Seventh plan	
	Actual achievement	Actual achievement	Target	Anticipated Achievement
<b>1. Production of</b>				
<b>Food</b>				
Items ('000 tonnes)				
a) Cereals	154.22	83.63	112.00	113.00
b) Pulses	3.24	9.26	16.00	14.30
c) Oilseeds	2.24	8.20	16.00	13.50
d) Vegetables	7.60	17.00	30.00	34.00
e) Fruits	8.01	13.54	24.08	24.00
f) Large Cardamom	3.45	3.71	4.50	3.80
g) Potato	6.05	21.27	30.00	34.10
h) Ginger	3.20	10.06	15.00	15.10
i) Other commercial crops		0.41	2.55	2.50
<b>2. Area under high yielding varieties ('000 Hectares)</b>				
	19.11	36.60	42.00	42.00
<b>3. Seed Production (Tonnes)</b>				
	239	2225	3970	4150
<b>4. Seed Distribution (Tonnes)</b>				
	460	840	1920	2000
<b>5. Planting Materials (Lakh-numbers)</b>				
a) Production	1.01	1.83	4.75	4.50
b) Distribution	4.31	5.00	5.00	5.20
<b>6. Consumption of Fertilizers (Nutrients in tonnes)</b>				
	720	1150	3000	3000
<b>7. Consumption of Pesticides Technical Grade (Materials in Tonnes)</b>				
	8.50	15.00	35.00	32.00
<b>8. Consumption of Liming Materials Tonnes</b>				
	520	720	800	800

1.	2.	3.	4.	5.
<b>9. Infrastructure Development</b>				
<b>( Cumulative )</b>				
a) Regional Centres (No)	9	9	12	11
b) Regional sub centres (No)	5	7	15	14
c) Cardamon Research Farm (No)	—	—	1	1
d) Dryland Research Farm (No)	—	—	1	1
e) Floriculture Farm (No)	—	—	1	1
f) Soil Testing Lab (No)	1	1	—	—
g) Seed Testing Lab (No)	—	1	—	—
h) Plant Protection Lab (No)	—	1	4	2
i) Mushroom Spawn Lab (No)	—	—	1	1
j) Agri. Engineering Workshop (No)	—	1	—	—
k) Agro Service Centres (No)	—	3	8	8
l) Training Institute/Centres (No)	1	1	3	3
m) Demonstration Farm (No)	1	10	23	16
n) V L W Centres (No)	50	109	153	128
o) Storage Godowns (No)	4	14	30	30
p) Tissue Culture Lab (No)	—	—	1	1

7. It is evident from the above analysis that there has been significant progress in this sector particularly relating to infrastructural development, production of seeds and planting materials, production of cash and commercial crops, and coverage of high yielding varieties etc. Further there has been also considerable progress in adaptive research resulting in the release of a large number of high yielding and improved varieties of crops suited to the agro climatic conditions in the State. However, the progress in regard to consumption of fertilizers, pesticides, evolution of suitable varieties of cereals, pulses and oil seeds for high altitudes as well as development of floriculture, non-traditional fruits and cultivation of high value medicinal and aromatic plants has not been satisfactory and will need very specific attention in the Eighth Plan. It has also been considered appropriate to organise specific programmes to improve the yields of cardamom where when compared to the yields obtained in Kerala, Sikkim's standards are comparatively low. Further a programme of reviving the cultivation of apples in North Sikkim has also been considered essential as this area which used to produce sizeable quantities of apples has been a total decline on account of diseases which have destroyed the trees. An effort will be made to attain self reliances in seeds and planting materials of appropriate varieties in

the State. The gross cropped area will be increased from 1,62,200 hectares, in 1989-90 to 1,84,500 by 1994-95. The net cropped area will be increased from 1,800 hectares in 1989-90 to 10,500 hectares in 1994-95. Correspondingly the cropping intensity will be increased from 157.80 percent in 1989-90 to 170 in 1994-95.

8. It will also be necessary for the State to pay increased attention to training of manpower particularly in the area of research, soil surveys, statistics, monitoring and evaluation as well as for training of farmers with particular attention to farm women. The physical infrastructure particularly in terms of buildings at the field level, in terms of regional centres, VLW centres etc. will have to be very substantially improved. Extension services will have to be reoriented to carry the message of technological upgradation of agricultural practices to the very doorstep of the farmers. With the entrustment of soil conservation activities outside the watershed areas to the Agriculture Department, the Department can also now pay full attention to the problem areas in the State prone to land slides etc. and integrate the effort with agricultural programmes, to evolve technically correct land use practices and cropping programmes.

9. The table below indicates the aims as far as improvement productivity standards of various crops is concerned :

CROP	7th Plan		8th Plan		1990-91	(Proposed)
	Area '000 Ha.	Anticipated Productivity Kgs/Ha	Area '000 Ha.	Productivity Kgs/Ha.	Area '000 Ha.	Productivity Kgs/Ha.
Cereals	83.30	1356	95.00	1379	86.30	1356
Pulses	14.50	986	16.00	1125	15.00	1000
Oilseeds	14.00	964	18.00	1056	14.20	979
Large cardamom	22.00	173	22.25	202	22.00	177
Potato	5.50	6182	6.00	7083	5.60	6429
Ginger	3.00	5000	3.80	5263	3.15	5079
Other tuber & Rhizomatic crops	0.85	2941	1.50	3333	1.00	3000
Fruits	11.50	2086	14.00	2571	11.84	2111
Vegetables	5.50	6181	6.50	6923	5.65	6194

10. The investment pattern in various crucial segments of agricultural activities is indicated in the table below :-

Head of Development	Fifth Plan	Sixth Plan	Seventh Plan Anticipated	Eighth Plan Proposed
1	2	3	4	5
a) Research & Education	20.18	37.58	96.58	230.00
b) Crop Husbandry	372.69	1005.76	1545.66	2900.00
c) Storage & Ware housing	4.20	17.99	48.88	100.00
d) Agriculture Marketing & Quality control	7.37	37.17	52.19	100.00
e) Soil & Water Conservation	29.54	42.90	146.86	1125.00
	494.44	1098.50	1890.17	4455.00

11. With the aims and objectives outlined for the Eighth Plan it would be necessary to strengthen to a considerable extent the department's manpower though in this area only the absolute minimum requirements will be catered to. The department would however need strengthening of manpower in the fields of statistics, accounts, multiplication and distribution of seeds, spread of manures, fertilizers and to implement programmes relating to commercial crops such as mushroom, exotic products like avocado, etc as well as for implementing the cardamom and apple rejuvenation programmes.

12. Attention will also need to be

given to those areas relating to seed production schemes, establishment of agriculture service centres, VLW quarters and for the implementation of schemes relating to horticulture and vegetable crops and for storage and warehousing.

13. For a number of schemes with a view to promote the rapid propagation, the State has been providing subsidies and incentives, while this will have to be continued keeping in mind the high transportation cost and the poor road network, an effort will be made to scale down the subsidies in the Eighth Plan. The table below indicates the reductions aimed at primarily in the areas of materials.

Programme		Seventh Plan Subsidy/Incentives S (%)		Eighth Plan Proposed Subsidy Incentives%
	Materials/Transport		Materials/Transport	
<u>1. Manures &amp; Fertilizers</u>				
a. Fertilizers	40	100	40	100
b. Rock phosphate	90	100	70	100
c. Liming Materials	100	100	75	100
d. Micro-nutrients and trace elements	on demonstration basis,			
e. Construction of compost pits	50	—	50	—
<u>2. Seeds</u>				
a. Potato	—	100	—	100
b. Other seeds	50	100	40	100
3. Fruits-Planting materials	75	100	50	100
4. Pesticides				
a. General Programme	50	100	50	100
b. Campaigns	100	100	100	100
c. P. P. Equipments	75	100	40	100
5. Equipments, handtools and Implements	75	100	50	100

14. The proposals for the Eighth Five Year Plan are briefly detailed below:-

**1. AGRICULTURE RESEARCH & EDUCATION**

**Eighth Plan: Rs. 170.00 lakhs**

**Annual Plan: 90-91 Rs. 35 Lakhs**

**a. Agriculture Research**

**Eighth Plan: Rs. 120.00 lakhs.**

**Annual Plan: Rs. 25 Lakhs**

In the field of Agricultural Research the State has concentrated on adaptive research and considerable progress has been recorded in this direction during the Seventh-Five Year Plan. A large number of high yielding variety of different crops suited to the specific agro climatic conditions of the State has been identified and their cultivation promoted. The State has now suitable varieties for high altitudes in the case of cereals, pulses and oil-seeds. Three centres for carrying out adaptive research in respect of large cardamom, floriculture and rainfed agriculture have started functioning.

Field trials have been conducted in respect of growing non-traditional crops such as arhar sunflower and spices. The centres are now fully geared for undertaking adaptive research and trials of varietal screening, land use programmes, crop weather relationship and cropping patterns. Already these trials have helped in improving productivity standards. Close co-ordination has been established with the ICAR Research Complex, in Gangtok as also with the Spices Board, and this has led to very useful exchange of information, transfer of laboratory results to the field etc. These programmes will all be carried forward to deal with specific problem relating to cardamom, ginger, orange, vegetables, potatoes and for the apple revival programme.

During the Eight Five Year Plan it is also proposed to enter into new areas such as medicinal plants, floriculture, off season vegetable production, introduction of non-traditional crop, evolution of better oil management techniques and growing of flowers and vegetable under controlled condition in glass houses.

TARGET & ACHIEVEMENT OF SEVENTH PLAN & TARGET PROPOSAL FOR THE  
EIGHTH PLAN 1990-95 ON AGRICULTURE RESEARCH

Sl. No.	Varietal Screening/Programmes	Unit	7th Plan Target	1985-90 Anticipated Achievement	8th Plan Proposed Target	1990-91 Proposed Target
1.	<u>Varietal Screening</u>					
	Varietal screening & breeding selection adoption trials etc. on cereals, pulses, oilseeds vegetables, fruits, commercial crops, tubers, and Rhizometric crops and spices crops.	Nos	300	380	675	125
2.	<u>Fertilizer (Major and Micro nutrient) response Trial</u>					
i.	Cereals-maize, paddy, wheat, millet, buckwheat, barley etc.	Nos	250	300	400	60
ii.	Pulses-Urad, moong, fieldpea, rajmah, rice bean, cowpea, lentil etc.	Nos	20	50	60	8
iii.	Rape and Mustard, Soyabean, Sunflower, Sesame, safflower etc.	Nos	10	45	50	6
iv.	Vegetables-Cabbage, cauliflower, radish, potato, beans, tomatoes, bhindi, leafy vegetables, cucurbits etc.	Nos	50	250	300	50
v.	Fruits-Orange, lime, lemon, Guava, banana, temperate fruits etc.	Nos	20	45	50	8
vi.	<u>Commercial Crops</u>					
	a. Large Cardamom	Nos	2	10	30	4
	b. Potato Seed	Nos	5	10	30	4
	c. Ginger	Nos	5	10	30	4
vii.	Other tuber and Rhizometric crops turmeric, sweet potato, tapioca etc.	Nos	5	10	25	3
viii.	<u>Spices and Condiments crops-</u>					
	Chillies, onion, garlic coriander etc.	Nos	5	8	25	3
3.	<u>Adoptive trials on Agronomic Practices</u>					
	Agronomic trials including spacing, seed size, seed rate, date of sowing, crop economics, crop rotation, plant population density	Nos	400	475	850	150

4. Pesticidals Trials

Efficiency trials of fungicide, Insecticides, weedicides, nematicides, rodenticides, acharicides, etc. on various crops	Nos	5	10	40	5
5. Medicinal Plants - Research Centre	Nos	—	—	1	1
6. Construction of Green House	Nos	—	—	2	1
7. Minikit Trials	Nos	1500	1500	2,000	350
<b>Total</b>	<b>Nos</b>	<b>2,577</b>	<b>3,103</b>	<b>4,568</b>	<b>782</b>

b) **Agriculture Education**

Eighth Plan: Rs. 50.00 lakhs

Annual Plan: 1990-91 : Rs. 10 lakhs

Continuous attention is required to see that the department constantly upgrades the standards of knowledge particularly in the various fields of technical research and keep track of the latest developments both within and outside the country. A programme of inservice training greatly helps in this efforts. Opportunities are also to be provided to officer and field functionaries to pursue higher studies where it is considered relevant to the State's requirements. To cater to the needs of training and updating of knowledge in respect of gram sewaks, agricultural inspectors and other field level functionaries a Composite Training Institute is functioning in the State. These programmes will therefore be continued during the Eighth Plan to see that the process is carried forward with vigour. The table below indicates the programmes taken up during the Seventh Plan and the proposed physical targets for the Eighth Plan.

II. **CROP HUSBANDRY**

Eighth Plan: Rs. 2190.00 lakhs

Annual Plan: 1990-91 : Rs. 381 lakhs

I. **DIRECTION & ADMINISTRATION**

Eighth Plan: Rs. 25.00 lakhs.

Annual Plan: 1990-91 Rs. 4 lakhs

The administrative and accounts set up of the Department will have to be further strengthened during 8th Plan period. With the delegation of sanctioning powers to the district level the system of accounts management needs to be improved upon. This calls for providing Accounts Officer in each of the district headquarters, which involves creation of four posts of Accounts Officer during Eighth Plan. Further the Department has at the moment no planning and monitoring cell which is of vital importance for proper planning and effective implementations of planned developmental programmes. Hence, it is envisaged to create a planning and monitoring cell with adequate and suitable personnel.

Programme	Seventh Plan		8th Plan	1990-91
	Target	Anticipated Achievement	Proposed Target	Proposed Target
1. Establishment of composite Training Institute (No.)	1	1	—	—
2. Post Graduate Courses (No.)	10	6	10	2
3. Graduate Courses (No)	10	5	20	4
4. Diploma Courses (No)	75	67	80	10
5. Gram Sevak Diploma Courses (No)	100	59	80	20
6. Short Courses (No)	—	36	40	8
7. Seminars and workshops (No)	10	15	25	5
8. Establishment of libraries (No)	1	—	5	1
9. Educational Tours (No) each with 10 persons	—	—	5	1

2. **SEEDS - MULTIPLICATION & DISTRIBUTION**  
**Eighth Plan: Rs. 275 lakhs.**  
**Annual Plan 90-91 Rs. 45. lakhs**  
 Improved seeds are of fundamental impor-

end of the Seventh Plan period is more than 40,000 quintals.

The details of seed production in the Government farms for the last five years are as follows.

ITEM	GOVT. FARM SEED PRODUCTION IN QUINTALS				
	(1985-86)	(1986-87)	(1987-88)	(1988-89)	(1998-90)
a. Cereals	1,021	1,210	1,032	1,136	1,325
b. Pulses	19	82	40	74	200
c. Oilseeds	82	98	64	73	150
d. Potato	1,842	2,020	1,831	2,181	3,500
e. Ginger	175	142	196	254	300
f. Vegetables	38	54	53	58	100
g. Others	13	203	149	194	170
<b>Total</b>	<b>3,190</b>	<b>3,809</b>	<b>3,365</b>	<b>3,970</b>	<b>5,745</b>

The details of achievement made under the seeds production programme in the farmer's field for the last five years are presented in the following table.

ITEM	FARMER'S FIELD SEED PRODUCTION IN QUINTALS				
	1985-86	1986-87	1987-88	1988-89	1989-90
a. Cereals	490	667	949	1,045	1,375
b. Pulses	304	310	265	363	400
c. Oilseeds	58	68	196	360	450
d. Potato	20,800	23,800	26,450	28,000	30,500
e. Ginger	—	1,000	2,000	2,400	2,700
f. Vegetables	164	167	262	341	200
g. Others	—	—	50	21	130
<b>Total</b>	<b>21,816</b>	<b>26,012</b>	<b>30,182</b>	<b>32,530</b>	<b>35,755</b>

tance in any programme of agricultural development. While improved seeds are evolved, the objective should be to reach these seeds to the farmers so that higher productivity standards are achieved. It is therefore of importance to ensure supply of this essential input to the farmers at the right time and in adequate quantities.

Good progress has been made in increasing seed production during the Seventh Plan period. Anticipated seed production by the

The extension of the Seeds Act, 1966 to the State of Sikkim and its notification in the State Government Gazette in 1988-89 has marked a new phase of development and a step forward for the seed development process in the State. There remains a lot of activities to be taken care of in the Eighth Plan to regulate quality of seeds by enforcing the provisions of the Act. In the coming years, emphasis will be laid on quality seed production in the farmer's field, and for which there is need to establish a strong seed certification agency and infrastructure for scientific storage and processing of seeds. The programmes and **modus operandi** of the scheme will be as follows:

(a) High quality seeds as breeder's seed, foundation seed and certified seed of recommended and promising crop varieties will be produced in the Government farms for further multiplication in the farmer's field and for general cultivation.

(b) Certified or truthfully labelled seed production will be carried out in the farmer's field for making available more seeds of suitable crop varieties within the State itself.

(c) Seed testing, which involves judging of seed quality through determination of purity, moisture content, germination percentage and seed health, will be applied to all seeds meant for raising new crop, certification and selling in the market. The Seed Testing Laboratory will play a crucial role in implementing the provisions of Seed Law.

(d) A well organised seed certification agency will be created in the State.

(e) A small unit for seed processing, which is being commissioned for cereal seeds and

is nearing completion, will start functioning in the Eighth Plan period. Seed processing is necessary in order to upgrade the overall seed quality through steps like drying, shelling, preconditioning, cleaning, size grading, treating, packing, tagging and post processing storage. A few more machineries and equipments including a cleaner-cum-grader for smaller seeds and transport facility need to be provided in the Eighth Plan period.

(f) In Sikkim, seed distribution is carried out by the Agriculture Department through its VLW Centre, Regional or Regional Sub Centres and other departmental outlets. Seeds are being distributed to farmers in the State at 50 percent subsidized rates with the exclusion of transport and handling costs. This system needs to be continued for sometime to pick up momentum for greater use of improved seeds by farmers. However, it is envisaged to taper down the subsidy element gradually.

#### PHYSICAL TARGETS:

Particulars	Seventh Plan		1989 - 90		VIII th Plan	1990-91
	Target	Anticipated Achievement	Target	Anticipated Achievement	Proposed Target	Proposed Target
A.						
Programmes:						
1. Seed Production (In '000 Tonnes)						
a. Cereals	0.34	0.27	0.27	0.27	0.35	0.29
b. Pulses	0.07	0.06	0.06	0.06	0.08	0.06
c. Oilseeds	0.07	0.06	0.06	0.06	0.09	0.06
d. Potato	3.20	3.40	3.40	3.40	4.00	3.50
e. Ginger	0.20	0.30	0.30	0.30	0.55	0.33
f. Vegetables	0.05	0.03	0.03	0.03	0.04	0.03
g. Others	0.04	0.03	0.03	0.03	0.06	0.03
<b>Total (1)</b>	<b>3.97</b>	<b>4.15</b>	<b>4.15</b>	<b>4.15</b>	<b>5.17</b>	<b>4.30</b>
2. Seed Testing (In '000 No. of samples)						
	1.20	5.50	3.00	5.50	8.00	6.00
3. Seed Certification (In '000 Hz.)						
	4.50	4.50	4.50	4.50	7.00	5.00
4. Seed Processing (In '000 Tonnes)						
	—	—	—	—	0.30	0.10



5. Seed distribution (In '000 Tonnes)							
a. Cereals	0.55	0.52	0.52	0.52	0.70	0.55	
b. Pulses	0.20	0.15	0.15	0.15	0.20	0.16	
c. Oilseeds	0.13	0.10	0.10	0.10	0.15	0.11	
d. Potato	0.71	0.85	0.85	0.85	1.50	0.96	
e. Ginger	0.22	0.30	0.30	0.30	0.55	0.33	
f. Vegetables	0.05	0.04	0.04	0.04	0.06	0.04	
g. Others	0.06	0.04	0.04	0.04	0.08	0.05	
<b>Total (5)</b>	<b>1.92</b>	<b>2.00</b>	<b>2.00</b>	<b>2.00</b>	<b>3.24</b>	<b>2.20</b>	
<b>6. Buildings -</b>							
a. Conditioned							
Seed Store							
(Nos)	-	-	-	-	1	-	
b. Seed Godowns							
(Nos)	1	1	-	-	3	-	
c. Quarters (Nos)	-	-	-	-	19	7	
<b>7. Motor Vehicles -</b>							
a. Purchased of							
trucks for							
Seed processing							
and distribution							
(Nos.)	1	1	-	-	3	1	
b. Purchase of							
jeeps for seed							
testing, seed							
certification &							
seed processing							
(Nos.)	1	1	-	-	4	2	

In order to implement the programme some essential posts such as Seed Analyst,

Chief Seed Certification Officer, Manager Seed Processing and some field staff will be created.

### III AGRICULTURE FARM

**Eighth Plan: Rs. 240.00 Lakhs.**

**Annual Plan: 90-91 Rs. 40 lakhs**

For regional development on agro-climatic basis, the State has been divided into twelve ecological regions with fifteen sub-regions.

developed and improved upon. The physical facilities relate to construction of residential and non-residential buildings, land development, fencing, construction of footpaths, development of irrigation facilities etc.

The achievements realised during Seventh Plan & programmes to be taken up in Eighth Plan are as under:

PROGRAMME	Seventh Plan		Eighth Plan Proposed Target	1990-91 Proposed Target
	Target	Achievement Anticipated		
1. Establishment of Regional Centre (No.)	12	11	1	-
2. Establishment of Regional Sub-centre (No)	15	14	1	1
3. Establishment of VLW Centres (Cumulative)	153	128	153	5
4. Establishment of Demonstration Farms (No)	23	16	7	1
5. Land Acquisition (Ha.)	-	27	30	4
6. Land Development (Ha.)	-	35	40	5
7. Fencing (Ha.)	-	24	50	5
8. Footpath construction (Metres)	-	1,680	4,000	800
9. Irrigation Facility (Ha)	-	26	50	8
10. Demonstrations (No)	-	1,280	3,060	600

In each region and Sub-region Regional Centres and Regional Sub-Centre respectively have also been established and under each Regional Centre there are VLW centres. The number of VLW centres under each region ranges from 12 to 15 depending upon the size of the region. The Regional Centres and Regional Sub-Centres have also been provided with farms of size 4 to 25 hectares for undertaking adaptive trials, multiplication of seeds and conduct of demonstration on various subjects. These centres play a pivotal role in carrying out agriculture developmental programmes within their area of operation concerning extension, distribution of agricultural inputs, land use planning and programmes etc. In addition to these centres there are also demonstration farms attached to some of the important VLW Centres. Such farms demonstrate latest crops production technology besides raising seedlings for distribution to farmers. These centres have been providing substantial benefits to farming communities.

During Eighth Plan the physical facilities of Regional Centres, Regional Sub-Centres, VLW centres and Demonstration Farms will be

In addition to these, the farms will be provided with improved implements, hand tools etc. to improve on work efficiency and reduce cost of production.

### IV MANURES & FERTILISERS

**Eighth Plan: Rs. 375 lakhs.**

**Annual Plan: 1990-91 : Rs. 85 lakhs**

The manures and fertilisers are the most important inputs to enhance productivity and production of crops. The consumption of balanced nutrients will be promoted by improving the distribution system, opening more salepoints, organisation of large scale demonstrations and development of storage facilities. The target is to double the consumption of fertilisers by the terminal year of Fifth Five Year Plan. For achieving this goal cooperative societies and private dealers will also be entrusted the work of distribution of fertilisers. Further, coorrective measures will be undertaken to remove soil deficiencies of micro nutrients and trace elements besides amendment of soil acidity.

In Eighth Five Year Plan, further efforts will be made to promote and popularise uses of bio-fertiliser and recycling of farm waste for making high grade organic manures.

The programme to be undertaken during Eighth Plan and achievements made in Seventh Plan are as follows :

During the 7th Plan, an array of HYV and improved varieties evaluated in the regional and regional sub-centres and in the ICAR Complex of Sikkim have been propagated to the farmers in the State. It is anticipated that about 48,000 hectares under the HYV and 28,500 hectares under improved varieties will be covered by the end of the Seventh Plan.

Programme	Seventh Plan		Eighth Plan	
	Target	Achievement	Eighth Plan Proposed Target	1990-91 Proposed Target
1. Consumption of Fertilisers (Nutrients in Tonnes)				
a. Nitrogen	2,000	1,700	3,000	1,900
b. Phosphorous	800	950	1,500	950
c. Potash	200	350	500	350
	3,000	3,000	5,000	3,200
2. Area Coverage under micro-nutrients ('000 Ha.)	14.60	14.00	15.00	2.80
3. Area coverage under trace elements ('000 Ha.) -	-	-	10.00	1.80
4. Area coverage under bio-fertiliser ('000 Ha.)	30.00	30.00	40.00	6.50
5. Construction of Compost Pits (Nos)	5,000	5,000	5,000	1,000
6. Organisation of fertilisers demonstrations (Ha.)	-	-	8,000	1,600
7. Opening of new sale Points (No)	-	240	200	40

V **HIGH YIELDING VARIETIES PROGRAMME**  
**Eighth Plan: Rs.200.00 lakhs**  
**Annual Plan 1990-91 : Rs.32 lakhs**

Of the various measures, to improve agricultural productivity, the high yielding varieties (HYV) programme plays a pivotal role. It is therefore, essential to popularise the use of HYV and improved varieties to the largest extent possible for achieving the ultimate goal of increased production.

This programme will be continued during the 8th Plan with greater attention to paddy as the coverage in respect of wheat and maize have progressed at a faster rate than paddy. The programme will further be supplemented with the related Central Sector or Centrally Sponsored Schemes like rice minikits, wheat minikits and demonstrations and minikits of maize and millets.

The seed requirements will be met from the the local production and outside sources for deficit seeds. Actual quantity of HYV and improved seeds to be procured from outside sources has been estimated as 20 percent of the total seed distribution on average.

Systematic multiplication of seed potato has been carried out with the annual allotment of breeder seed from the Central Potato Research Institute in the Seventh Plan period. The foundation seed potato production in the Government farms has gone up from 1,800 quintals in 1985-86 to 2,500 quintals in 1988-89 and anticipated 3,000 quintals in 1989-90.

#### Physical Target

Particulars	VIIth Plan		1989-90		VIIIth	1990-91
	Target	Anticipated Achievement	Target	Anticipated Achievement	Plan proposed Target	Proposed Target
1. Area under Coverage of H Y V ('000 Ha.)						
Rice	11.00	12.00	12.75	12.00	14.30	13.00
Wheat	11.00	11.70	12.30	11.70	14.90	12.70
Maize	20.00	24.30	25.00	24.30	26.30	25.00
Total HYV (1)	42.00	48.00	50.05	48.00	55.50	50.70
2. Area Coverage under improved varieties ('000 Ha.)	24.90	28.50	28.50	28.50	32.00	29.00
3. Minikit trials of 0.10 Ha. size each ('000Nos)	20.00	20.00	5.00	5.00	30.00	5.00
4. Demonstrations of 0.20 Ha. size each ('000 Nos.)	10.00	10.20	1.70	1.70	15.00	2.00
5. Purchase of truck	-	-	-	-	1	-
6. Posts -						
a. Store-keeper	-	-	-	-	2	-
b. Driver	-	-	-	-	1	-

#### VI COMMERCIAL CROPS

**Eighth Plan: Rs. 350.00 lakhs**

**Annual Plan 1990-91 : Rs. 55 lakhs**

The crops like large cardamom, ginger, potato, turmeric, tapioca and other high value crops are highly suited to the agro-climatic situation and have the greater potential of improving the economy of farmers in the State. Further the returns one can expect from these crops is of a higher order than crops like cereals.

##### (a) POTATO

Potato is one of the most important commercial field crops of Sikkim. It is grown in high altitude areas for production of seed potato in the summer season and in low lying areas for producing table potato in the winter season. It deserves special attention for development. In fact, seed potato production is one of the most important occupation of the people located around and above 2,100 metres altitudes and it is the only major source of income.

It is proposed to establish one more foundation seed potato farm during the Eighth Plan period.

The certified seed potato production in the farmers' field has gone up considerably in the Seventh Plan period. Anticipated production for 1989-90 is 30,500 quintals as against 20,800 quintals certified seed potato production of 1985-86.

In the Eighth Plan period, efforts will be made to increase seed potato production in farmer's field from 30,500 quintals to 36,000 quintals. Under this programme, the Agriculture Department will procure breeder's seed for multiplication in the Government farms and certified or truthfully labelled seeds from local potato growers for distribution to farmers of low-lying areas for growing vegetable potato.

Demonstrations will be conducted to promote adoption of improved varieties and improved cultural practices for seed crop as well as vegetable crop. It is proposed to conduct 3,000 demonstrations during the Eighth Plan period.

## Physical Targets

Particulars	Target	VIIth Plan Anticipated Achievement	1989 - 90		VIIIth Plan Proposed Target	1990-91 Proposed Target
			Target	Anticipated Proposed Achievement		
1. Establishment of seed potato farm (No.)	1	1	-	-	1	1
2. Certified seed potato Production in farmers' field ('000 Tonnes)	3.00	3.05	3.05	3.05	3.60	3.14
3. Procurement & distribution of seed potato ('000 Tonnes)	0.50	0.50	0.50	0.50	1.10	0.60
4. Total seed potato distribution ('000 Tonnes)	0.71	0.85	0.85	0.85	1.50	0.96
5. Breeder seed potato Procurement (Tonnes)	50	40	10	10	50	10
6. Potato demonstration of 0.2 Ha. size ('000 Nos.)	1.20	1.20	0.30	0.30	3.00	0.40
7. Potato production ('000 Tonnes)	30.00	34.00	34.00	34.00	42.50	36.00
8. Posts -						
a. Potato Development Officer	-	-	-	-	1	1
b. Agriculture Inspector	-	-	-	-	1	1
c. Field Assistant	-	-	-	-	2	2

## (b) MUSHROOM DEVELOPMENT

In consideration to the Government's policies of promoting protein and rich food, recycling of agricultural waste and the emphasis to provide avenues of employment, mushroom cultivation deserves particular attention.

In the Seventh Plan period, steps have been taken to establish basic infrastructures

for spawn production and demonstration of mushroom cultivation in the State. The Mushroom Spawn Complex is nearing completion. At the same time, a number of demonstration on mushroom cultivation as well as training programmes to the interested growers have been organised.

The programme will be carried forward to see that production on a commercial scale is organised in the State.

## Physical Target :

Particulars	Target	VIIth Plan		1989-90		VIIIth	1990-91
		Anticipated Achievement	Target	Anticipated Achievement	Plan Proposed Target	Proposed Target	
1. Spawn production ('000 Bottle)	-	-	-	-	-	42.50	2.00
2. Production of fresh mushrooms (Tonnes)	-	-	-	-	-	1,200	5
3. Adaptive trials & research (Nos.)	-	-	1	1	1	35	5
4. No. of demonstrations (50 trays/100 blocks of 0.50 x 0.30 x 0.15m size each)	40	40	20	20	20	360	30
5. Mushroom cultivation trainings (No. of farmers)	20	20	20	20	20	500	50
6. Establishment of Growers's Association (Nos)	-	-	-	-	-	6	1
6. Establishment of Infrastructures							
a. Mushroom spawn Complex (No)	1	1	1	1	1	-	-
b. Community Collection Centre (No.)						6	1
c. Canning & Dehydration Units (No.)	-	-	-	-	-	2	-

## C. OTHERS

## (i) Large Cardamom :

Cardamom is the most important cash crop of Sikkim with area and production of 22,000 hectares and 3,800 tonnes respectively. It fits very well under agro-forestry system of land use and gives returns to growers over a long period. The main problem of this crop is declining Yield from old plantation primitive method of curing and poor management practices. Several plantations have been seriously damaged because of unusually severe frost and snow fall of January 1989. It is proposed to implement a well organised rejuvenation programme including propagation of planting materials, creation of certified nurseries, replantation of old and uneconomical plantation and construction of improved curing houses, application of fertilizers etc. The programme will be implemented in close association with the I.C.A.R.

## (ii) Ginger :

Ginger is another profitable cash crop in Sikkim. It is a crop grown widely by small and marginal farmers and suitably fitted as an intercrop with fruit orchards, maize, arhar, and beans. In the Eighth Plan it is proposed to cover more area under improved varieties to improve yields and output. The other activities to develop this crop include bank loan subsidy to needy progressive farmer and identification and multiplication introduction of improved varieties.

## (iii) Other Tuber Crops

Tuber crops like turmeric, tapioca, sweet potato yam etc. have great potential in Sikkim due to favourable agroclimatic conditions. Till recently these crops have not received adequate attention. In the Eighth Plan, improved varieties will be screened out and propagated for popularising among the farmers.

The Eighth Plan targets, anticipated achievement by the end of Seventh Plan and proposed targets for 1990-91 under commercial crops are indicated as below :

that entered the area while introducing some new varieties. A programme to revive apple cultivation by replanting suitable plants and evolving a package of practices to enable the

Programme	Seventh Plan Target (1985 - 90)		Eighth Plan 1990-95 Proposed target	1990-91 Proposed Target
	Target	Anticipated Achievement		
1. Establishment of Cardamom Farm (No.)	1	1	1	-
2. Replantation of old cardamom plantation (Ha)	100	250	500	100
3. Establishment of certified cardamom nurseries (Nos)	-	20	100	20
4. Propagation of cardamom planting materials at Govt. farm ('000 Nos)	200	200	500	100
5. Establishment of improved cardamom curing house (Nos)	130	130	150	30
6. Ginger seed distributions (Tonnes)	220	220	250	50
7. Other tuber & Minor commercial crops seed distribution (Tonnes)	60	60	100	20
8. Introduction & identi- fication of suitable varieties of ginger & other tuber crops (Tonnes)	-	-	100	20
9. Establishment of small experimental farm for minor commercial crops (Nos)	1	-	1	-
10. Bank loan subsidy for ginger cultivation (Ha.)	-	100	500	100
11. Jeep	-	-	2	-
12. Truck	-	-	1	-

IV The apple orchards in North Sikkim have suffered a serious decline due to diseases

plants to flourish in the area will be undertaken during the Eighth Plan.

## VII Plant Protection

Eighth Plan: Rs. 150.000 lakhs

Annual Plan 1990-91 : Rs. 27 lakhs

Sikkim's climatological conditions are ideal and conducive for proliferation of diseases and pests in endemic or epidemic form. The losses of crops in fields and under storage have been quite high ranging from 5 to 30%. Some of the important diseases-pests associated with different crops are as follows :

under plant health cover should be more of protective and preventive nature, and resorting to control measures on campaign basis in case of appearance of disease/pests on endemic or epidemic form. Hence, more emphasis will be given for seed treatment, soil treatment and prophylactic measures and also promoting cultivation of diseases-pests tolerant or resistant varieties. However, systematic plant protection programmes need to be provided to tackle diseases-pests

Crop	Pests	Diseases
1. Paddy	Leaf roller, stem borer and leaf hopper crab.	Blast stem rot and bacterial blight.
2. Maize	Stem borer, army worm, pink borer and cut worms.	Leaf blight and smut
3. Wheat	Cut worms and aphids	Rust and smut
4. Pulses	Pod borers and aphids	Powdery mildew, blight and wilt.
5. Rape - Mustard	Aphids	Rust, mildew and pod blight
6. Soybean	Aphids and pod borer	Blight and downey mildew
7. Large Cardamom	Leaf eating caterpillar, thrips and stem-borer.	Chirkey, Furkey, leaf spot and rhizome rot.
8. Ginger	White grub and mealy bug	Rhizome rot and leaf spot.
9. Cole Crop.	Aphids and borers	Damping off, club rot, blight and mildew
10. Cucurbits	Aphids and mite	Fruit rot and downey mildew
11. Chillies	Thrips and fruit borer	Fruit rot, root rot and anthracnose.
12. Tomato	Fruits borer and jassid	Damping off, blight and viruses.
13. Lady's finger	Jassid and red cotton bug.	Leaf spot and damping off.
14. Brinjal	Aphids, mealy bug, shoot and fruit borer and nematodes.	Fruits rot, wilt and damping off.
15. Potato	Cut-worm red ants, white grub and aphids	Late blight and charcoal rot.
16. Citrus	Aphids, white fly, top shoot borer, leaf minor, stem borer, and fruit sucking moth.	Canker, powdery mildew, sooty blotch
17. Banana	Aphids and beetle	Bunchy top and anthracnose.
18. Guvea	Fruit fly and bark eating (caterpillar.)	Wilt and anthracnose.
19. Stone Fruits	Aphids and fruit fly.	Leaf curl, leaf spot and root rot.

The control of diseases and pests are cost intensive due to difficult terrains, high rainfall and mixed cropping system. The programme

problems associated with cash and commercial crops like large cardamom, ginger, orange, apple, potato and off-season vegetables. Further, an



urgent need is there to undertake control of rats (field and house) and stored grain pests on campaign basis to prevent and reduce losses. This also involves improving the storage structures and creating hygienic condition.

The Eighth Five year Plan programmes under plant health cover include establishment of plant protection laboratory in districts and one standard laboratory at State Headquarters, creation of

three mobile plant protection squads, development of survey and surveillance units, development of quick forecasting system and quality control of pesticides. A systematic approach to be adopted for tackling important diseases and pests associated with important crops.

The achievement made in Seventh Plan and programmes to be undertaken during Eighth Plan under plant protection are as under:

P. R O G R A M M E	Seventh Plan		Eighth Plan	1990 - 91
	Target	Anticipated Achievement	Proposed Target	Proposed Target
1. Consumption of pesticides (Technical Grade Materials Tonnes)	35	32	40	33
2. Area coverage under plant protection programme ('000 Ha.)	60.15	57.60	72.00	59.40
3. Establishment of plant protection Mobile units (No)	5	5	3	1
4. Establishment of plant Protection Laboratory (No)	4	1	3	1
5. Control of Store Grain Pests (No. of houses)	-	-	20,000	4,000
6. Control of rats (No. of houses)	-	-	25,000	5,000
7. Diseases-pests management of cash and commercial crops (Ha)				
a. Large Cardamon	-	-	6,000	1,200
b. Orange	-	-	2,500	500
c. Ginger	-	-	2,000	400
d. Potato	-	-	3,000	600
e. Peas	-	-	1,500	300
f. Vegetables	-	-	2,000	400
8. Establishment of Survey and Surveillance Unit	-	-	1	-
9. Special Programme for rivival of apple plantation	-	-	200	40
10. Distribution of Seed bins (No.)	-	-	500	100
11. Distribution of Plant Protection Equipments	-	-	500	100

### VIII EXTENSION & TRAINING

**Eighth Plan: Rs. 75.00 lakhs**

**Annual Plan 1990-91 : Rs. 10.4 lakhs**

The extension & training is a crucial input for effective transfer of technology to the farmers. This involves adoption of extension methodology to disseminate scientific knowledge at the grass-root level through a system of training, audio-visual aids, printed materials, meetings, field

The existing Farmers' Training Centres will also be improved upon by providing teaching aids and mobile facilities.

The anticipated achievements during Seventh Plan and programmes to be undertaken during Eighth Plan under extension & training are as furnished below

Programme	Seventh Plan		Eighth Plan	1990-91
	Target	Anticipated Achievement	Proposed Target	Proposed Target
1 Establishment of Farmers Training Centre	1	1	2	-
2 Training of Farmers (No)	20,000	21,340	25,000	5,000
3 Making of Films(No)	5	3	5	1
4 Mobile Publicity Unit(No)	—	—	1	—
5 Publication and distribution leaflets, booklets etc. No. in lakhs	3	3.1	5	1
6 Organisation of Farmers' Field Days(No)	200	186	270	54
7. Organisation of Seminars Workshops etc.(No)	25	14	25	5
8. Demonstrations	2,700	2,865	3,500	700
9. Educational Tours- Per batch 20 farmers No. of batches	—	5	10	2

days, exhibitions, crops competition, conducted tours, group discussions etc. including practical demonstrations of crops production practices. This also includes development of technical competency amongst farmers through regular impart of knowledge on various subject matters relating to agriculture and also development of leadership and contact farmers.

In Eighth Plan the programmes envisaged for implementation relate to introduction of T & V system of extension service, creation of mobile publicity and equipped with audio-visual aids, establishment of two Farmers' Training Centres for North and South district, providing physical infrastructures to Farmers' Training centre in East district and organisation of training to farmers and farm women on large scale. It is also proposed to make video films on different topics.

### IX AGRICULTURE ENGINEERING

**Eighth Plan: Rs.100.00 lakhs**

**Annual Plan 1990-91: Rs.12 lakhs**

Though the scope for large scale mechanisation of agriculture is limited in Sikkim, efforts to introduce simple mechanical devices to improve productivity are nevertheless of considerable importance in bringing about improvements in yields.

Already four Agro-service centres established in different regions have really benefited farmers in providing post-harvest processing facilities. The anticipated achievement in the distribution of hand tools and agriculture implements is 12,000 numbers by the end of the Seventh Plan.

The programmes to be implemented under this scheme in the Eighth Plan period will be as follows:

- a. Agriculture Engineering Workshop will be strengthened to increase its efficiency of production. Testing of new tools and implements will be carried out in this workshop. Some of the recommended tools and implements for the State will be fabricated and manufactured for distribution. The workshop will also be entrusted with repair works.
- b. Agriculture tools and implements like threshers, horticultural tools, plant protection equipments, seed drills, cultivators, shellers, seed extractors, seed bins etc. which cannot be manufactured in the workshop in sufficient quantities, will be procured for distribution to farmers.
- c. Demonstrations of recommended tools and implements will be conducted with free installation at the farmers' level as an incentive to popularise improved tools and implements. Distribution of tools and implements will be continued with the provision of 50 per cent subsidy on material and 100 per cent transport and handling subsidy.
- d. The establishment of small Agro-Service centres will be taken up in a phased manner. Each Agro-service centres will be equipped with power operated machineries and equipments for processing, threshing, shelling, oil extraction, grinding and so on. These centres, run on custom service basis, not only solve the problem of post-harvest process of the farms but also help in increasing agricultural production of the surrounding areas.
- e. Agriculture engineering cell will also look after the construction and maintenance of residential quarters and farm structures of Agriculture and Animal Husbandry departments in the state.
- f. Minor works and micro-irrigation facilities in the Government farms will be executed by the Agriculture Engineering Cell. There is need to strengthen this cell with the creation of more posts and the provision of mobility facility.

Particulars	VIIth Plan		1989-90		VIIIth Plan	1990-91
	Target	Anticipated Achievement	Target	Anticipated Achievement	Proposed Target	Proposed Target
1. Distribution of hand tools '000 Nos.	25.00	23.20	6.00	6.00	37.50	6.50
2. Distribution of horticultural '000 Nos.	20.50	19.50	5.00	5.00	29.25	5.25
3. Distribution of other implements '000 (Nos).	2.00	1.80	1.00	1.00	8.25	1.25
4. Production of hand tools & implements in the workshop '000 (Nos).	—	11.00	4.00	4.00	30.50	4.50
5. Demonstration of tools & implements '000 Nos.	2.50	2.50	0.70	0.70	10.00	1.00
6. Establishment of Agro-service centres (No.)	5	4	1	1	5	1
7. <u>POSTS</u>						
a. Supervisor	—	—	—	—	4	4
b. Mechanical Operator	—	—	—	—	8	4
c. Electrician	—	—	—	—	2	1
d. Plumber	—	—	—	—	2	1
e. Carpenter	—	—	—	—	2	1
f. Assistant Mechanics	—	—	—	—	10	4
g. Purchase of a truck	—	—	—	—	1	1

## X. AGRICULTURE ECONOMICS & STATISTICS

**Eighth Plan Rs.: 50.00 lakhs**

**Annual Plan 1990-91 : Rs.6 lakhs**

The generation of reliable data on all aspects of agriculture is of crucial importance to the State and so far this aspect has not received adequate attention. A proper system of collection analysis and dissemination needs to be organised and data generated on the basis of crops cutting experiment etc. This is particularly important in Sikkim as the traditional system of collection of crop statistics through the revenue administrative mechanism does not exist in Sikkim. A proper machinery with an Agriculture Economist, Statistician and supporting staff will be organised during the Eighth Plan.

## XI. DRYLAND DEVELOPMENT

**Eighth Plan: Rs. 40.00 lakhs**

**Annual Plan 1990-91 : Rs. 8 lakhs**

Dry land farming is relatively new area of action for Sikkim and it is only from 1985-86 with the promotion of dry land farming in terms of selecting suitable crops, improved water management and farming practices etc. has been organised in the State. A package of measures in selected micro water sheds with a view to improving productivity, introduce proper water harvesting and tank irrigation methods, application of fertilizers etc. has been taken up in the

Seventh Plan. These practices will be carried further and technologies of inter cropping, evaporation control, land development and motivation of farmers will be taken up. It is proposed that during the Eighth Plan 20 selected micro water sheds will be treated with a package of practices.

## XII. HORTICULTURE

**Eighth Plan: Rs. 300.00 lakhs**

**Annual Plan 1990-91 : Rs.55 lakhs**

The agro-climatic condition in the State are eminently suitable for producing wide varieties of fruits like orange, guava, banana, plum, peaches, pears etc. and it is proposed to introduce new fruits such as avocado, straw-berries etc. Production of proper planting material increase in the area under fruit plantation, establishment of progeny orchards, replantation of old and uneconomical orchards will be taken up in the Eighth Plan. Programme will also cover vegetables and for the first time a definite programme for the propagation of floriculture. The programme will include demonstration, preparation of bankable schemes, establishment of seed multiplication farms and glass house cultivation under controlled conditions.

The eighth plan (1990-95) target, anticipated achievement by the end of 7th Plan and proposed targets for 1990-91 under Horticulture & vegetable crops are given below:

Programme	Seventh Target	Plan 1985-90 Anticipated Achievement	Eighth Plan 1990-95 Proposed Target	1990-91 Proposed Target
<b>A. Fruits</b>				
1. Planting New Orchards				
a. Area Coverage in (Ha)	5,100	5,110	5,500	1,100
b. Planting Material distribution '000 Nos	2,500	2,550	3,000	600
c. Demonstration (Ha)	500	—	—	—
2. Replantation of Old Orchards (Ha)	—	250	500	100
3. Establishment of Progeny Orchards	5	5	5	1
4. Propagation of planting materials of Fruits '000 Nos	475	480	550	490

5.	Subsidy grant for Bank financing (Ha)	500	300	500	75
6.	Rejuvenation of declining Citrus Orchards (Ha)	—	—	500	75
7.	Introduction of promotion of non-traditional fruit (Ha)	—	—	200	30
8.	Adoptive Trials (Nos)	—	—	10	2
B.	<u>Vegetables:</u>				
1.	Area coverage under vegetables (Ha)	5,300	5,000	7,000	5,150
2.	Establishment of vegetable seeds multiplication (farm Nos)	—	—	2	—
3.	Vegetable Crash Programme around townships (Ha)	—	—	500	100
4.	Off season Vegetable Cultivation (Ha)	—	—	1,000	150
5.	Demonstration (Ha)	—	—	500	100
C.	<u>Floriculture</u>				
1.	Establishment of Floriculture Farm (Nos)	1	1	1	—
2.	Planting Materials propagation of Flowers ('000 Nos)	300	350	1,000	200
3.	Development of Flower nurseries at Farmers' field (Nos)	—	—	25	4
4.	Development of a small size Orchidarium (Nos)	—	—	1	—
5.	Subsidy grant for Bank loan financing (Ha)	—	—	100	20
6.	Glass House (Nos)	—	—	2	—
7.	Shed for plant Propagation (No)	—	—	1	—
8.	Jeep	—	—	2	—
9.	Van/Truck	—	—	2	—

**(XIII) ASSISTANCE TO SMALL AND MARGINAL FARMERS-A.C.S.S. SCHEMES ON 50:50 SHARE BASIS STATE SHARE PROPOSAL**

**Eighth Plan: Rs. 50 lakhs**

**Annual Plan 1990-91 : 10 lakhs**

For effective Economic development through increased agriculture production in the holdings of small and marginal farmers including Tribal Farmers and for bringing prosperity to the farming community a Centrally sponsored scheme of Assistance to Small and Marginal farmers is being implemented in Sikkim since 1983-84. The scheme is funded by the Central and State Government on 50:50 basis and componentwise percentage of annual allocation are :-

1. Subsidy on Minor Irrigation —70% of total Outlay
2. Land Development —20% of total Outlay
3. Distribution of Minikits of seeds —10% of total Outlay

The scheme comprises of three different components viz; Minor Irrigation, Land Development and Minikit Seed distribution. The Scheme facilitates the 4 (four) Districts (Blocks) proportionately on the basis of micro-watershed selected by the Government every year.

**MINOR IRRIGATION**

This component is being operated by Irrigation Department with its existing infrastructure with contribution of State share from their Budget providing subsidy on Irrigation to prescribed farmers of Watershed (Block) for bringing about enhancement on production.

**LAND DEVELOPMENT**

This component also plays vital role for increasing production/productivity by way of conserving soil, moisture and fertility and in some cases converting fallow land to cultivable area. Hence, Land Development subsidy which includes land terracing, bench marking, land shaping and grading with diversion/safe disposal of surface run-off water.

**MINIKIT SEED DISTRIBUTION**

In order to provide incentive to the catergorised farmers of Micro-Watershed, various kind of seeds mainly Pulses, Oilseeds and Coarse grain are being distributed at the rate of two minikits one in kharif and another in Rabi season. Each minikit will cover an area of 0.20 has. Every farmer will have to pay Re.1/- per minikit as nominal charges from 1989-90 and onward as per Government of India's directive with the objective of increasing production.

Since this scheme has been very beneficial to the farmers and their standard of living having been lifted significantly, during the eighth Plan Period, this programme will be enhanced in all three components and accordingly the Physical and Financial Targets have been increased to continue the ongoing schemes.

**PHYSICAL TARGETS**

Particulars	Seventh Plan 1989-90		Eighth Plan 1990-91			
	Target	Anticipated Achievements	Target	Anticipated Achievements	Proposed Targets	Proposed Targets
Assistance to small and marginal farmers						
(a) Land Development '000 (Ha)	1.60	1.60	0.32	0.32	1.60	0.32
(b) Minikits '000 (Nos)	10.00	10.17	2.00	2.00	10.00	2.00
(c) Minor Irrigation '000 (Ha)	0.70	0.64	0.14	0.14	0.78	0.14

**FINANCIAL TARGETS**

Particulars	Seventh Plan		1989-90		Eighth Plan 1990-91	
	Approved Outlay	Anticipated Expenditure	Approved Outlay	Anticipated expenditure	Five Year Plan Proposed	Annual Plan Proposed
Assistance to Small and Marginal Farmers	40.00	33.30	10.00	10.00	50.00	10.00

**XIV. STORAGE & WAREHOUSING****Eighth Plan: Rs. 75.00 lakhs****Annual Plan 1990-91 : Rs. 12 Lakhs**

In Seventh Plan the target was to create additional storage capacity of 10,000 tonnes which has been achieved and for Eighth Five Year Plan the programme is to create additional storage capacity of 10,000 tonnes. The additional storage capacity is needed for storage of agriculture inputs, Government Farms produce and growers produce for marketing purpose. For realising this target funds will be met out of Plan programme and also the centrally sponsored scheme on "National Grid of Rural Godowns".

The achievements made in Seventh Plan and programmes to be undertaken during Eighth Five Year Plan storage and warehousing are as follows.

Programme	Seventh Plan		Eighth Plan 1990-91	
	Target	Anticipated Achievement	Proposed Target	Proposed Target
1. Scientific Storage Facilities for Government Farms(No)	—	—	10	2
2. Inputs Stores (No)	11	5	6	1
3. Rural Godowns	—	17	20	4
4. Creation of Additional Storage Capacity (MT)	10,000	10,000	10,000	10,000

**XV. AGRICULTURE MARKETING & QUALITY CONTROL****Eighth Plan : Rs. 75.00 lakhs****Annual Plan 1990-91 : Rs. 12 lakhs**

Absence of marketing infrastructure continues to be the greatest hurdle in promoting cultivation of cash and commercial crops on a massive scale. Without adequate marketing support the interest of producers cannot be taken care of and this is more so in a hilly State like Sikkim with poor road network and prohibitive transport cost including labour wages. There are two apex marketing organisations, the State Supply & Marketing Federation and

Denzong Agricultural Marketing Society Limited which have been to a limited extent helping producers in disposal of their farm produce. However, the bulk of farm produce is handled by middlemen and farmers are exploited to the maximum extent.

In regard to marketing of farm produce, the role of the Department of Agriculture has been more of supportive and promotional nature. Its activities are confined to promotional marketing of farm produce like seed potato, off-season vegetables, table potato etc. to a limited extent primarily to encourage farmers to undertake cultivation of such crops in large areas.

In Eighth Five Year Plan, the programmes envisaged include enactment of Market Regulation Act, establishment of regulated markets, gearing up marketing activities of apex marketing organisations, promoting use of alternative packing

materials to replace timber, establishment of collection and grading centres and promotional marketing of off-season vegetables, potato, cut flowers and bulbs etc. The programme under Market Intelligence will be further strengthened to cover more commodities and markets. Price support scheme will also be undertaken to ensure remunerative prices to farmers covering produce like ginger, orange, potato and large cardamom.

A sum of Rs. 2550.00 lakhs has been proposed as the financial outlay for the Eighth Plan period for Agricultural Sector and Rs. 451.00 lakhs is earmarked for Annual Plan 1990-91. The scheme/projectwise allocation are given in GN - 2 statement.

## DRAFT EIGHTH FIVE YEAR PLAN (1990-95) &amp; ANNUAL PLAN-1990-91

## HEADS OF DEVELOPMENT : OUTLAY &amp; EXPENDITURE

## DEPARTMENT : AGRICULTURE

Statement GN-2  
(Rs. in lakhs)

Code No.	Name of the Scheme/ Project	Seventh Plan Outlay (1985-90)	Expendi- ture 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	of which capital content	Annual Plan 1990-91 Proposed Outlay	of which capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
101000000	1. AGRICULTURE & ALLIED SERVICES							
101240100	CROP HUSBANDRY	1379.00	1153.71	362.00	2190.00	295.00	381.00	44.00
001	Direction & Adminis- tration	11.00	16.04	6.00	25.00	—	4.00	—
102	Food Grains Crops(High Yield Varieties Programme)	105.00	105.74	30.00	200.00	—	32.00	—
103	Seeds (Multiplication & Distribution)	180.00	140.27	40.00	275.00	35.00	45.00	5.00
104	Agriculture Farms	150.00	155.25	37.00	240.00	125.00	40.00	20.00
105	Manures & Fertilisers	280.00	243.60	85.00	375.00	10.00	85.00	—
107	Plant Protection	120.00	87.91	27.00	150.00	20.00	27.00	3.00
108	Commercial Crops	150.00	125.19	50.00	350.00	25.00	55.00	5.00
109	Extension & Training	50.00	45.05	9.00	75.00	20.00	10.00	3.00
110	Crop Insurance	—	—	—	—	—	—	—
111	Agri. Economics & Statistics	13.00	14.13	5.50	50.00	—	6.00	—
113	Agri. Engineering	60.00	42.47	11.50	100.00	20.00	12.00	3.00
115	Small & Marginal Farmers	40.00	23.30	10.00	50.00	—	10.00	—
119	Horticultural & Vegetable Crops	220.00	154.76	51.00	300.00	40.00	55.00	5.00
800	Other Expenditure	—	—	—	—	—	—	—
●1241500	AGRICULTURAL RESEARCH & EDUCATION	65.00	63.08	33.50	170.00	40.00	35.00	10.00
004	Research Development	35.00	37.26	23.50	120.00	30.00	25.00	5.00
227	Agri. Education	30.00	25.82	10.00	50.00	10.00	12.00	5.00
●1240800	FOOD, STORAGE & WARE-HOUSING	45.00	37.38	11.50	75.00	75.00	12.00	12.00
02	Storage & Warehousing							
800	Other Expenditure	45.00	37.38	11.50	75.00	75.00	12.00	12.00
●2251500	OTHER RURAL DEV. PROGRAMMES	25.00	21.95	8.00	40.00	—	8.00	—
103	Dryland Development	25.00	21.95	8.00	40.00	—	8.00	—
●243500	OTHER AGRICULTURAL PROGRAMMES	60.00	37.69	14.50	75.00	25.00	15.00	4.00
01	Marketing & Quality Control	—	—	—	—	—	—	—
102	Grading & Quality Control facilities	60.00	37.69	14.50	75.00	25.00	15.00	4.00
	TOTAL	1574.00	1313.81	429.50	2550.00	435.00	451.00	70.00



## CHAPTER III

**Soil And Water Conservation**

1. The entire State of Sikkim lies along the lower Himalayan belt and is geologically young with extreme susceptibility to soil disturbance, due to seismic factors. Further the torrential rain that the State experiences during the entire monsoon period, starting from the middle of May to almost end of October also has a very severe impact on the soil structure. Economic development, in the shape of road building, construction of power stations, the spread of urban areas and the increasing hunger for agricultural land also have serious implications as far as soil conditions are concerned. Road building activities have had to be undertaken not only to provide, the required transportation links to the villages but also to satisfy strategic and defence requirements. The increasing demand for fuel wood, of a growing population, the demand for construction timber etc. also pose dangers to the green cover. There is hardly any instance of shifting cultivation in the State, as for a long time now, settled cultivation has been encouraged including terracing of agricultural land but all the factors enumerated above have to be taken note of and measures initiated to ensure soil stability, avoidance of soil erosion and soil run off. In particular the major catchment areas of the river systems that originate in the State have to be given special attention as any disturbance of these areas and reduction of green cover can have serious consequences in terms of reinforcing the already pronounced tendencies in regard to, soil run off, excessive and far too quick an outflow of rainfall precipitation, causing floods and devastation in the lower regions as well as in the adjoining States.

2. In the past both during the 6th and the 7th Plan the strategy in this sector was therefore to identify vulnerable areas particularly in and around water sheds with a view to saturate the areas with a package of measures including afforestation, land management, protective works etc. The approach was one of ensuring a coordinated effort among the Soil Conservation, Forest and Agriculture etc. departments so that the maximum possible area is covered within the given resources. Further under the River Valley Programme and Soil Watch

Schemes specific measures were undertaken in respect of two major river basins (Rorachu and Rate ychu) which serve as the catchment areas for rivers which feed the power projects built in the area.

3. The measures enumerated above while pertinent to water shed areas, steps had also been taken to tackle soil instability problems in agricultural lands outside the water shed areas. This was particularly important as valuable agricultural land was subject to landslides and erosion during the rainy season. These measures included terracing and protection work as also tackling the problems relating to acidity in the soil by suitable soil treatment, garland or necklace plantation of food fodder and grasses as well as fruit trees. Restoration of pasture and grazing land was also part of the programme. The table below briefly summarises the achievement under various schemes during the 5th and 6th Plan:

	Fifth Plan	Sixth Plan
Afforestation	2,200 Ha.	4,430 Ha.
Protective Works	1,700 Ha.	3,000 Ha.
Land Development & Terracing		8,730 Ha.
Garland & necklace Plantation		500 Ha.
Amendments of Soil		3,200 Ha.
Fodder Plantation		75 Ha.

4. The position as regards the 7th Plan's anticipated achievement is summarised in the following tables:

	Physical Achievements upto 1988-89	Anticipated Achievement 1989-90	Total Achievement
	(In Hectares)		
Protective Works	4,883	400	5,263
Garland or Necklace Plantation	1,030	600	1,630
Command Area Development	950	450	1,400
Afforestation	5,030	1,500	6,530
Fodder Plantation	230	50	280
Terracing	5,320	600	5,920

Pasture Development 100Ha. 100Ha. 200Ha.  
Protective Works  
out-side water sheds 3,800Ha. 2,000Ha. 5,800Ha.

5. The overall target for the 7th Plan to be covered under the various schemes was 44,400 Ha. consisting of 30,000 Ha. of agricultural land and the rest non-agricultural land. However, the actual achievement during the 7th Plan is likely to be only around 30,000 Ha. which is primarily because of inadequacy of financial provision, continuous increase in the cost of material and labour. The allocation for the sector in the past 3 plans are Rs. 150.00 lakhs for the 5th Plan, Rs. 662.00 lakhs for the 6th Plan, Rs. 1000.00 lakhs during the 7th Plan.

#### **PROPOSALS FOR THE EIGHTH FIVE YEAR PLAN**

6. During the Eighth plan the soil and water conservation measures will be almost exclusively in the water shed areas. The Centrally Sponsored Scheme such as River Valley Projects and Soil and Water Conservation measures in the Himalayas will continue to be implemented. The schemes for survey and testing particularly in agricultural land as well as of soil conservation activities outside the water shed areas will now be the responsibility of the Agriculture Department. Further the 3 catchment areas of the rivers Rangeet, Teesta and Rongnichu were studied by M/s. Haq Consultants, Jaipur, with a view to recommending measures for ensuring long term soil stability, conservation of green cover, catchment areas treatment as well as control of outflow of water from these areas. The measures recommended are of enormous significance from the point of view of ensuring continuity of water supply for human consumption, availability of water to the power projects as also ensuring soil stability condition in the area. The measures proposed by M/s. Haq Consultants have been considered by the State Government and since the financial implication are very large, implementation will be taken up partly in the 8th Plan and partly in the 9th Plan. Provision has been made for that segment which have been taken up during the 8th Plan.

The proposals for the Eighth Plan are tabulated below :-

#### **DIRECTION & ADMINISTRATION**

**Eighth Plan : Rs. 30 Lakhs**

**Annual Plan 1990-91 : Rs. 4 Lakhs**

The catchment areas of Rangeet, Rongnichu and Mayongchu rivers have to receive special attention during the 8th Plan. All these rivers were studied by a firm of Consultant, M/s Haq Consultant, with a view to implementing long term measures for soil stability. There are power projects which are coming up in the area and it is important that catchment areas of these areas are properly preserved. In order to carry out these responsibilities, the department will have to be strengthened so that specific teams of Officers are devoted to these projects. Marginal additions to manpower will be required particularly in regard to specialists in the Soil Conservation and engineering areas. In order to defray the expenses involved in expanding the manpower and to provide the necessary equipments for these personnel an outlay of Rs. 30 lakhs is proposed for the Eighth Plan.

#### **B) SOIL SURVEY AND INVESTIGATION**

**Eighth Plan : Rs. 120 Lakhs**

**Annual Plan 1990-91 : Rs. 16 Lakhs**

Provisions have to be made under this scheme for Soil Testing, Soil Survey and Investigation by both the Agriculture and Land Use Departments. Soil Testing is an essential activity in order to determine soil characteristics, soil deficiencies and prescribe remedial measures that have to be taken. As regards the Survey and Investigation while Agriculture Department will have to undertake Survey and Investigation of projects to be implemented outside the water shed areas, the Land Use Department will be responsible for activities within the identified Water Shed Areas. A total provision of Rs. 120 lakhs will have to be made during the Eighth Plan out of which Rs. 50 lakhs will have to be for Soil Testing by the Agriculture Department and Rs. 20 lakhs for Soil Survey and Investigation by the Agriculture Department. The remaining Rs. 50 lakhs will be for Survey and Investigation by the Land Use Department.

## SOIL AND WATER CONSERVATION

**Eighth Plan : Rs. 1575 Lakhs**

**Annual Plan 1990-91 : Rs. 244 Lakhs**

As mentioned above vulnerable areas in and around the Water Sheds have been identified in the entire State so that these can be treated with a package of measures involving afforestation, land management, protective works etc. Afforestation was to be coordinated between the Forest Soil Conservation and Agriculture department so that the maximum possible area is covered within the given resources. During the Eighth Plan it is proposed to see that all the 30 catchment areas are fully covered and physical targets for afforestation as well as other activities such as protective works are completed in these areas. For this purpose a clear demarcation of responsibility has been effected and 13 water sheds in which considerable amount of work has been completed as they were taken up in the later part of the Sixth Plan will now be the responsibility of the Forest Department as far as afforestation activities are concerned. In the remaining 17 numbers of Water sheds the soil conservation, department will take up afforestation activities to see that within Eighth Plan the entire programme is completed. It is not proposed to take up any new Water Sheds during the Eighth Plan, until the 17 which have to be completed is fully taken care off. Further apart from afforestation, it is also proposed to complete all protective works and terracing activities in all the 30 water sheds during the Eighth Plan. These works will involve Engineering measures, Terracing, Benching as well as biological control measures. Fencing will be provided wherever required in order to see that biotic interference is altogether eliminated. The provision would also take care of the requirements for implementing the recommendations contained in the report of the Haq consultant in respect of the Rangeet & Teesta catchment areas. For the above purpose a total provision of Rs. 1575 lakhs will be required out of which Rs. 1200 lakhs will be for Soil Conservation in Water Shed areas to be undertaken by the Land Use Department and Rs. 375 lakhs will be for Soil Conservation outside the Water Shed areas to be undertaken by the Agriculture Department. This includes a provision of Rs. 25

lakhs for Water Conservation during the Eighth Plan, a programme that will be implemented by the Agriculture Department.

### D) LAND RECLAMATION AND DEVELOPMENT :

**Eighth Plan : Rs. 90 lakhs**

**Annual Plan 1990-91 : Rs. 15 lakhs**

This programme consists of two segments namely Soil reclamation implemented by the Agriculture Department and Development of perennial water resources to be implemented by the Land Use Department. As regard Soil reclamation the basic activity is amendment of soil conditions with a view to compensate for deficiencies by application of elements such as Dolomite. The main problem in Sikkim has been acidic condition of the soils which need extensive correction. A provision of Rs. 50 lakhs will be required for the Eighth Plan period. As regards development of perennial water resources it may be stated that the State has a large number of perennial water resources in terms of streams and rivers and in several areas small irrigation channels have been constructed by the farmers or by the Irrigation Department. It has been noticed that due to deforestation and degradation the water retention capacity of the soil has been reduced and it is necessary to take specific measures such as afforestation to improve the water retention capacity in these areas and reduce the Soil run off. It is proposed to take up 500 ha. under this scheme.

### E) OTHER EXPENDITURE

**Eighth Plan : Rs. 135 Lakhs**

**Annual Plan 1990-91 : Rs. 21 Lakhs**

The schemes covered under this category are Garland plantation, Command Area Development and Training. The Agriculture Department implements the scheme relating to Garland Plantation and Command Area Development. Garland Plantation is primarily intended to promote plantation of fruit trees in and around Water shed areas so that alongwith conservation the people in the area can also get additional revenue. As regards Command Area Development this is primarily to develop areas to benefit from irrigation schemes so that the required field channels, protective measures etc. are taken care of and the irrigated water is properly utilised. As regards training the

department would require continuous up dating the knowledge, by keeping all the latest developments in the field of soil conservation and related activities. Deputation of officers to refresher courses, in service training and exchange of information are part of these efforts. Further programme to educate the general public in regard to value of terracing, preservation of green covered are also taken up. A total provision of Rs.135 lakhs is pro-

posed during the Eighth Plan out of which Rs. 50 lakhs will be for garland plantation Rs.75 lakhs for Command Area Development and Rs. 10 lakhs for Training.

8. The total outlay for all the above programmes relating to Soil Conservation for the 8th Plan is proposed to be Rs.1950.00 lakhs and for the Annual Plan 1990-91 the outlay proposed is Rs. 300.00 lakhs details of which are presented in the GN-2 statement.

## DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN 1990 - 91

## HEADS OF DEVELOPMENT : OUTLAY EXPENDITURE

Statement GN - 2

## DEPARTMENT : SOIL AND WATER CONSERVATION

(Rs. in lakhs)

Code No.	Name of the Scheme/Project	Seventh Plan Outlay 1985-90	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth-Plan 1990-95	Of which capital content	Annual plan 1990-91 Proposed Outlay	Of which capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
101240200 SOIL & WATER CONSERVATION								
001	Direction & Adm.	23.00	29.21	8.00	30.00	—	4.00	—
101	Soil Survey & Testing	20.00	31.52	13.00	120.00	—	16.00	—
	i) Soil Testing Agriculture	10.00	26.28	10.00	50.00	—	7.00	—
	ii) Soil Survey & Investigation	10.00	5.24	3.00	20.00	—	3.00	—
	iii) Survey & Investigation (L.U)	—	—	—	50.00	—	6.00	—
102	Soil Conservation	817.00	836.82	319.00	1575.00	—	244.00	—
	i) In watershed Areas (L.U.)	807.00	928.16	316.00	1200.00	—	180.00	—
	ii) Outside watershed areas Agri.	—	—	—	350.00	20.00	60.00	5.00
	iii) Water Conservation	10.00	8.66	3.00	25.00	—	4.00	—
103	Land Reclamation & Development	30.00	20.18	5.50	90.00	—	15.00	—
	i) Soil Reclamation (Agri.)	30.00	20.18	5.50	50.00	—	10.00	—
	ii) Dev. of perennial Water/resources Land/Use	—	—	—	40.00	—	5.00	—
800	Other Expenditure	110.00	67.00	25.00	135.00	..	21.00	..
	i) Garland Plantation	35.00	21.00	10.00	50.00	..	8.00	..
	ii) Command Area Development	75.00	46.00	15.00	75.00	..	12.00	—
	iii) Training	..	..	..	10.00	..	1.00	..
Total		1000.00	984.73	370.50	1950.00	..	300.00	..

## CHAPTER IV

**Animal Husbandry & Dairy Development**

1 In a predominantly rural economy such as Sikkim, Animal Husbandry activities form an extremely important element in the efforts to bring about substantial improvements in living standards. The overall area available for agricultural operations is limited to about 15 percent of the geographical area of the State and with the increasing population, the per capita land availability has been consistently declining. It is therefore essential, that supplementary sources of income should be developed in order to provide not only the much

and stockmen centres, taking preventive measures to avoid occurrences of diseases and up-gradation of stock by introducing high milk yield cows, better quality stock of poultry and programmes for piggery development. Food and fodder management has also been part of the programme.

2 On the basis of these efforts the overall increases in milk, eggs etc. achieved in the Fifth, Sixth and Seventh Plans are summarised in the table below :-

Sl. No.	Items	5th Plan	6th Plan	Seventh Plan
1.	Milk production in '000 tons.	10.950	19.00	27.00
2.	Egg production in million nos	1.25	3.50	12.00
3.	Wool production in lakhs kg.	0.24	0.24	0.18

needed support to the rural families but also to make available in increasing quantities, protein rich food items such as milk, eggs and meat. These considerations have influenced the thinking in formulating programmes during the Sixth and Seventh Plan periods and considerable emphasis has been laid on increasing milk production, eggs and meat. The efforts are a combination of providing the necessary infrastructure for wide ranging health facilities, for the animals through a network of veterinary hospitals, veterinary dispensaries

3 Even with these increases it may be stated that the availability of milk per person per day in Sikkim is not more than 170 mililitres and the number of eggs per person per year will be a mere 30 eggs by the end of the Seventh Plan. There is therefore, a great deal of leeway that has to be made up if both the consumption of milk and eggs as also that of meat products are to be increased and the standards achieved elsewhere in the country are also to be made available in Sikkim. The physical achievements under various programme during the past three plans is given in the table below :-

Sl. No.	Name of Schemes	Unit	Vth Five Year Plan (1975-80) Achievement	VIth Five Year Plan (1980-85) Achievement	VIIth Five Year Plan (1985-90) Anticipated Achievement
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1.	2	3	4	5	6
1.	<b>CATTLE DEVELOPMENT</b>				
	a) Distribution of milch cattle	Nos.	151	328	650

1	2	3	4	5	6
	b) Distribution of breeding bulls	Nos.	140	253	266
	c) A. I. Cases conducted	Nos. in lakhs	0.05	0.12	0.34
	d) A. I. Sub-centres established	Nos.	21	6	7
	e) Natural Services conducted.	Nos. in lakh.	0.22	0.33	0.35
	f) Frozen bank established	Nos.	-	1	1
	g) Heifer Raising farm set up	Nos.	1	2	1
	h) Milk Production	'000 Tonnes	10.95	19.00	27.00
	i) Distribution of heifers	Nos.	15	25	365
2.	<u>POULTRY :</u>				
	a) Establishment of farms cum hatchery	Nos.	1	1	-
	b) Demonstration unit set up	Nos.	20	35	45
	c) Distribution of birds	Nos.	9700	30400	75.00
	d) Egg production (State Total)	Millions	1.25	3.50	12.00
	e) Distribution of ducks	Nos.	-	700	2305
3.	<u>PIGGERY DEVELOPMENT</u>				
	a) Piglets distribution	Nos.	190	435	700
	b) Breeding board distribution	Nos.	60	93	242
	c) Piglets produced in department farms	Nos.	250	675	1850
	d) Piggery unit set up through assistance tied with bank loan	Nos.	-	4	35
	e) Piggery farms established	Nos.	2	1	1
4.	<u>SHEEP &amp; GOAT DEVELOPMENT</u>				
	a) Distribution of bucks	Nos.	50	75	85
	b) Distribution of rams	Nos.	40	15	39
	c) Wool production	lakhs bags	0.23	0.26	0.29
5.	<u>VETERINARY SERVICES</u>				
	a) Hospital set up	Nos.	7	1	-
	b) Vety. Dispensaries	Nos.	23	2	-
	c) Stockman Centres set up	Nos.	-	42	23

1	2	3	4	5	6
	d) Vety. cases treated	Nos. in lakhs	1.27	2.25	2.85
	e) Establishment of disease investigation laboratory	Nos.	1	-	1
	f) Check post set up	Nos.	-	3	2
6.	<u>FOOD &amp; FODDER DEVELOPMENT</u>				
	a) Fodder Plant distribution	Nos. in lakh	0.20	0.80	95.00
	b) Fodder seed distribution	in tons.	5.00	7.5	28.00
	c) Fodder demonstration unit set up	Nos.	22	84	202
	d) Fodder seed farm set up	Nos.	1	2	3
	e) Distribution of Mini-kits	Nos.	-	40	11,000
	f) Distribution of chaff cutters	Nos.	100	100	56
7.	<u>FARMERS TRAINING &amp; EXTENSION</u>				
	a) Calf rallies organised	Nos.	45	52	55
	b) Film shows organised	Nos.	-	125	135
	c) Farmer's field day organised	Nos.	-	20	66
	d) Farmers trained	Nos.	250	470	900
	e) Stockman trained	Nos.	120	192	86
	f) Livestock shows	Nos.	5	3	2
8.	<u>VETERINARY RESEARCH</u>				
i)	a) Production of chicks	Nos. in lakhs	1.25	4.50	6.50
ii)	a) Distribution of broiler	Nos. in lakhs	-	0.09	0.15
	b) F. M. D. vaccination conducted	Nos. in lakhs	0.25	0.75	1.25
9.	<u>DIARY DEVELOPMENT</u>				
	a) Milk collection centres set up	Nos.	-	15	30
	b) Third Milk Plant set up	Nos.	-	-	2
	c) Distribution of Milk cans.	Nos.	65	126	775
	d) Proceeding unit for Milk product	Nos.	-	-	1

It would be seen from the above table that while significant achievements have been recorded in a number of areas particularly in regard to piggery development, establishment of veterinary services and training of farmers, the programmes relating to cattle development and poultry need much greater attention. (iv) With this background the overall strategies for the Eighth Plan will have to be in terms

of the following :-

- (a) To achieve significant increases in milk and egg production and to bring about genetic improvement of important livestock breeds both by selective and cross breeding.
- (b) Achieve a significant step up in the fodder production area as also grazing ground development and ensure availability of balanced livestock feed.



(c) Introduce modern technologies such as embryo transfer technology for the purpose of enhancing the rate of growth of physical stock in the State.

(d) Achieve a greater spread of veterinary services, so that animal health cover is significantly improved and the artificial insemination techniques are employed on a much wider scale.

(e) To modernise the existing livestock and poultry farms so that these form the basis for distribution of improved varieties of livestock and poultry. This programme will be integrated with establishment of high grade farms by private individuals.

(f) To strengthen the Sikkim Milk Union and Sikkim Livestock Development Corporation for providing proper marketing facilities for milk and livestock products. It may be added that during the Seventh Plan there has been a noticeable improvement in the performance of Sikkim Milk Union and the Operation Flood II has been implemented in Sikkim. The collection of milk, the provision of veterinary aids and number of participating cooperatives in the Sikkim Milk Union have all shown substantial increases. The S.L.D.C. has completed building up of a cheese plant in North Sikkim. The cheese plant will not only supply quality cheese to the market but more importantly generate a ready demand for milk produced in that area as also encourage the farmers to take to milk production in a big way. With a view to ensure availability of meat processed under proper hygienic conditions a modern slaughter house is being established and it is expected that the plant will be commissioned in the first year of the Eighth Plan itself.

5 The table below briefly gives financial outlays for this sector during the Fifth, Sixth and Seventh Plan :-

Sl. No.	ANIMAL HUSBANDRY	DAIRY DEV.	TOTAL	
1.	5th Five Year Plan Actual	235.54	27.81	263.35
2.	6th Five Year Plan Actual	511.46	87.10	598.56
3.	7th Five Year Plan (Anticipated)	813.18	96.71	909.89

## 6 Programmes for the 8th Plan

As mentioned above one of the main objectives to be achieved during the Eighth Plan would be a substantial improvement in the quantity of milk, eggs and other products including wool produced in the State. The milk production target therefore to be achieved by the end of Eighth Plan has been fixed as 46,000 tonnes which would mean a per capita availability of approximately 250 millilitres per day. This would bring the State's consumption level close to the recommended level of consumption of 285 millilitres per day. No doubt States like Gujarat and Haryana have much higher per capital consumption of over 600 ml. per person per day. In regard to egg production it is expected that we will achieve the target of 22 million eggs by the end of the Eighth Plan thereby improving per capita availability to 43 per person per annum. Meat production including beef, poultry, pork and mutton will be increased to well over 10,000 tonnes so that the per capita availability is at least around 70 grams per person per day. Similarly, wool production is also targetted to achieve 35 lakhs kg. The proposals for the Eighth Plan are discussed below :-

### 1. VETERINARY SERVICES & ANIMAL HEALTH

**Eighth Plan : Rs. 250 . lakhs**

**Annual Plan 1990-91 : Rs. 48 lakhs**

It needs hardly any emphasis that the availability of adequate veterinary services throughout the State is extremely important in order to ensure availability of adequate health cover to the entire animal and poultry population in the State. The plan is to consider establishment of more veterinary hospitals, where the coverage is inadequate, and increase the number of dispensaries and stockmen centres so that basic facilities are available to the farmers within reasonable distances and preventive measures are taken well in time as far as communicable diseases are concerned. It is proposed to establish one more hospital in South District, two in West District and one in

East District. Similarly, one more veterinary dispensary in the South, two in the West, two in the East and one in the North District will be established. The stockmen centres need to be expanded only in the East and North Districts and it is proposed to add five and three new centres in these districts respectively. The existing veterinary hospitals and dispensaries need very considerable strengthening in terms of facilities. The hospital at Gangtok has to cater to a much larger animal population than what it was designed for and it has to be provided with not only proper disease investigation and diagnostic facilities but also a modern operating theatre. The laboratory will have a bacteriology wing, a pathology wing and parasitology wing.

It is also proposed to establish a regional Disease Investigation laboratory at Karfector. Further it is considered essential that a wing for production of all biological products which at the moment are being imported from outside the State should be established so that these products are available in adequate quantities without any loss of time. To undertake all these programmes, a provision of Rs. 250 lakhs will be required.

## II. FEED AND FODDER DEVELOPMENT :

**Eighth Plan : Rs. 250 lakhs**

**Annual Plan 1990-91 : Rs. 32 lakhs**

Programmes for increasing the productivity of live stock is intimately connected, with the provision of proper feed and fodder to cattle population. Fodder production programmes has so far not received adequate attention due to absence of suitable infrastructure, absence of farmers oriented extension programmes in regard to technology transfer and non availability of improved varieties of fodder crops. This sector will, therefore, have to receive much greater attention especially because of the fact that there is a very severe deficiency in regard to both green fodder and dry fodder in Sikkim. During the Eighth Plan therefore, a very substantial increase in the area under fodder cultivation and increase in fodder availability is aimed at. The programmes will include improving the performance of the existing seed production farms by providing them with irrigation facilities seed testing laboratories and employ proper

quality control methods, development of natural pastures, development of gorucharan lands, encouragement to farmers to take to fodder cultivation in a much bigger way, and close coordination with the Agriculture and Forest Departments in increasing the area under forest. It is also essential to create a fodder bank. It is also proposed that much better and more effective utilisation of farm wastes such as straw be organised. As regards poultry feed, improvements will have to be through better performance of the animal feed plant in the State, proper quality control of feed supplies and adequate stock of feed so that during the monsoon period there is no problem in obtaining adequate supplies. An overall outlay of Rs. 250 lakhs will be provided for this programme.

## III. CATTLE DEVELOPMENT SCHEME :

**Eighth Plan : Rs. 250 lakhs**

**Annual Plan 1990-91 : Rs. 42 lakhs**

As per the 1981 census, the total bovine population in the State is 1,76,591 out of which 4046 are buffaloes and rest 1,72,546 are cattle. Out of the total human population of 3,16,385 about 80 percent of the people are residing in the rural areas. The net rural population comes to 2,66,000 peoples and cattle numbering 1,76,591 is reared by these people. This shows that adequate number of animals are maintained by the farmers in the State. The animals kept by the farmers are however still non-descript type having slow growth, negligible production in terms of milk and meat, late maturity etc.

This situation calls for an integrated programme of cattle development to increase the productivity of the local animals through cross breeding, introduction of exotic stock, spread of AI facilities, improved feed & fodder management practices etc.

Jersey and their crosses are doing extremely very well in the state of Sikkim. These animals are small in size and the fat content in milk is high. During the 8th Five Year Plan semen from proven jersey/HF will be extensively used. In addition, in the low altitudes the Holstein Friesen Cows will be taken up. Beef production breed will be introduced to meet the growing demands of beef in the State.

**(a) Embryo Transfer Centre (New)**

An embryo transfer centre will be set up in the 8th Five Year Plan with the help of the I.C.A.R. Necessary infrastructure requirements and manpower will be built up. The Centre will be in operation by the middle of the 8th Five Year Plan. Already manpower training for this programme has started.

**(b) Expansion of A.I. activities in the state.**

In order to create adequate facilities for A.I. works in North and East Districts, a liquid nitrogen plant with a capacity of producing 5 litres, nitrogen per hour has been commissioned in the year 1987. This nitrogen plant can cater to the liquid nitrogen requirement of 40 A.I. Sub Centres. In order to further expand this activity, it is proposed to set up one liquid nitrogen plant with a capacity of 5 lit/hour, frozen semen depot, semen freezing and sealing laboratory at Karfectar, South Sikkim. This plant will cater to the needs of 40 A.I. Sub-Centres of South and West Districts. The department has submitted a scheme to Govt. of India for 100 per cent C.S.S. on this Scheme. It is likely that the scheme will be sanctioned during this financial year. Govt. of India will be giving fund for creation of assets only. The cost of running vehicles, cost of semen dosages and other incidental expenditure will have to be borne by the state plan.

**(c) Cooperative Heifer Raising Farms under private Sector (new)**

Every year over 2000 Cows are introduced in Sikkim by banks, I.R.D.P., private farmers and the department under various schemes. Since the departmental cattle farms cannot be expanded, it is proposed to establish, cooperative heifer raising farms in the four districts of Sikkim. Under this new programme, each society will be registered with the milk union and they will be provided free A.I. facilities, frozen embryos, balanced feed, subsidy and assistance for raising of fodder. In the 8th Five Year Plan, 10 such cooperative societies will be set up and the heifer produced by these societies will be marketed by the banks, I.R. D.P. and the department under various programmes.

**(d) Assistance to the Progressive Farmers: Under Bankables Project in cattle farming: (on going)**

It is also proposed to assist the progressive farmers in the state to the tune of 25 per-cent of the total cost in setting up cattle farms. The subsidy will be limited to capital expenditure incurred in buying stock and construction of byre on modern line. This will enable the department to produce more cross-breed heifer/cows in the state, thus minimizing further the import of graded cows from the neighbouring states.

**(e) Cattle Farms (ongoing)**

During the 7th Five Year Plan the following Cattle Farms were established.

Cattle breeding farms:—

East	—	2 nos.	Tadong and Pangthang
South	—	2 nos.	Jorethang and Rabongla
Total	:—	4 nos.	

It is proposed to shift the Tadong farm and 200 acres of land will be acquired in East District for the establishment of a new farm. The bull rearing farm at Gyalzing will be closed and it will be converted into cattle Demonstration Farms. The details of the cattle farms to be established in the 8th Five Year Plan are as follows:

During the 8th Five Year Plan, it is proposed to maintain only two cattle breeding farms i.e. one in the East and another at Karfectar, South Sikkim. These two farms could be modernized and high milk yielding 150 cows will be introduced. Separate project reports for the above farms would be prepared. The frozen embryo transfer technology will be introduced in these farms.

**(f) Provision of subsidized feed to cross-breed Cows**

This is one of the production incentives required to be provided to the farmers owning cross-breed cows. The majority of the farmers in Sikkim are having only 2-3 acres of land and hence they cannot afford to produce concentrate requirement of their animals. They are therefore, dependent upon the private

traders for their requirement of oil cakes and bran for making cattle feed. The cost of these items at the hand of private traders is exorbitantly high which results in uneconomical milk yield. 60-70 per-cent of the expenditure in a dairy is on feed and fodder. Hence, it is proposed to provide cattle feed to the farmers at a subsidized cost i.e. 25 per-cent general farmers and 50 per-cent to ST/SC farmers so that the milk production goes appreciably. It is proposed to take up 5000 cows every year. Each cow will be given 2 kg. concentrate a day for 365 days.

	1st yr.	2nd yr.	3rd yr.	4th yr.	5th yr.
General farmer	350	700	1050	1400	1750
ST	125	250	375	500	625
SC	25	50	75	100	125

#### (g) Raising of Cross-breed heifer

The objective is to assist the small farmers/marginal farmers and agricultural labourers in rearing of cross-breed female calves produced by cross-breeding programme from the local cows already held by them. The scheme envisages provision of concentrate feed to the cross-breed female calves 4th to 28th months old at subsidized rate. This will enable the farmers to have high quality cross-breed and there by improving their economic condition.

Feeding scheduled for which assistance will be provided:

Age group in months	Feed requirement per day in kg.	Total requirement of feed in kg.
4th month	1.00 kg.	30 kg.
5th month	1.50 kg.	45 kg.
6th month	1.75 kg.	52 kg.
7th month	2.00 kg.	60 kg.
18th-19th to 28th month	2.50 kg.	1410 kg.

1597 kg. say 1600 kg.

It is proposed to adopt about 500 cross-breed heifers. The expenditure is worked out as under :—

	1st yr.	2nd yr.	3rd yr.	4th yr.	5th yr.
General Farmers	350	350	350	350	350
SC	25 -do-	25	25	25	25
ST	125 -do-	125	125	125	125

#### (IV) POULTRY DEVELOPMENT :

##### Eighth Plan : Rs.200 Lakhs

##### Annual Plan 1990-91 : Rs. 30 Lakhs

Indian poultry is one of the most efficient and productive in the world today and can easily achieve the desired growth rate so as to provide adequate quantities of eggs and chicken meat. A private feed manufacturing plant has been established in Sikkim with a capacity to produce 100 m. tonnes of feed per day and the State can generate necessary raw materials for the plant.

The basic aim of the programme is to bring about a substantial increase in egg production and in the availability of table birds. The details of the programmes are indicated below.

#### PRODUCTION OF LAYER BIRDS

Presently our per capita availability of eggs per year is only 14 eggs compared to the recommended level of consumption of 180 eggs per year. By the end of the Eighth Five Year Plan the per capita availability of eggs will be 43. Thus the extra eggs requirement for production per person per year is 29 and the details are given below :-

- i) State Population (1994-95) — 5.13 lakhs
- ii) Extra eggs required — 41.000 eggs per day
- iii) Nos. of layers required to produce 41.000 eggs per day — 75.000 Layers.

#### PRODUCTION OF BROILER BIRDS

Under the chicken for meat sector a target of 4653 m. tons of meat is proposed and by the end of the Eighth Five Year Plan, six broiler or nine kg. of chicken meat will be available per person per year in Sikkim. Keeping the

internal production of chicken meat in mind, the extra chicken meat requirement is 4,600 m. tons and our broiler production target should be 2,200 nos. per week to achieve the above targets.

The various programmes to be taken up under poultry development schemes are broadly indicated below:-

(a) **DEVELOPMENT OF CENTRAL POULTRY FARMS**

The two Central farms situated at Tadong (East) and Karfectar (South) will further be strengthened, farms will be modernized, rearing of birds in californian cage system will be introduced in both the farms. The wooden poultry houses will be dismantled and new R.C.C. constructions will be taken up. Further brooding houses will be constructed to accommodate more chicks. 4000 layers at Gangtok and 3000 layers at Karfectar will be maintained at Tadong and Karfectar for the production of eggs. In order to supply day old chicks for the farmers and the Govt. farms, the parent stock of 2000 birds of both layer and broiler, the worms in the chicks and pullets, the heating and water treatment plant will be introduced.

(b) **DISTRICT POULTRY FARMS**

Presently the poultry maintained at the district farms vary from 2000-3000 birds and during Eighth Five Year Plan, it is proposed to increase the strength to 2000 birds at the district head quarter and also raise day old chicks for distribution. In the district Demonstration farms, it is proposed to raise the strength to 1000 birds. The details of the numbers of birds to be maintained at the district and farms are as follows:-

(i) **EAST DISTRICT**

Centres.	Layer Farm strength	Broiler Farm strength	Day old chicks to be reared
1. Rhenock	2000	2000	2,000
2. Sirwani	1000	—	1,000

(ii) **NORTH DISTRICT**

1. Mangan	2000	2000	7,500
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(iii) **WEST DISTRICT**

1. Dodak	1000	—	3,500
2. Mangal-barey	1000	—	3,500
3. Gyalzing	2000	2000	7,500

(iv) **SOUTH DISTRICT**

1. Namchi	2000	2000	7,500
2. Tarku	1000	—	3,500
3. Mellidara	1000	—	3,500

The day old chicks reared in the above centres will be distributed to the farms under I.R.D.P., backyard poultry schemes, Tribal and scheduled caste programme.

(C) **ESTABLISHMENT OR PRIVATE BANKABLE POULTRY FARMS**

Under this programme, the unemployed youth will be imparted training and each will be provided with bank finance for taking up poultry farms for eggs or for meat. The details are as follows:—

(a) **INVESTMENT FOR LAYERS**

1. Number of unemployed youth to be selected	50
2. Farms Strength	1000
3. Total Layer Strength	50,000
4. Capital required for raising Layer at the rate of 120 per layer	60.00 lakhs
5. Bank Finance 75 percent on capital	45.00 lakhs
6. Subsidy component 25 percent on capital (deptt.)	15.00 lakhs

(b) **INVESTMENT FOR BROILER FARM**

1. Chick meat target by the Fifth Five Year Plan	4600 m. tons
2. No. of broiler required per week to produce the above meat.	2200 nos.
3. Capital required to produce one broiler per week at the rate of Rs. 600/- per broiler	13.20 lakhs
4. Bank Finance 75 percent of the cost	9.90 lakhs
5. Departmental subsidy 25 percent	3.30 lakhs
6. No. of Broiler farms to be set up	14 Farms
7. No. of youths to be selected	14 nos.

(a) **EMPLOYMENT IN PRODUCTION AND MARKETING UNDER POULTRY SECTOR**

By the end of the Eighth five Year Plan, the total employment generated in production and marketing of eggs and meat would be as follows :-

Items	Egg Sector	Chicken Meat Sector	Total
1. Direct production sector	50	14	64
2. Additional employment in production sector	60	20	80
3. Marketing Sector	110	50	160
<b>Total :-</b>	<b>220</b>	<b>84</b>	<b>304</b>

A total provision of Rs.200 lakhs is proposed for this entire programme.

(V) **PIGGERY DEVELOPMENT**

**Eighth Plan: Rs. 200 lakhs**

**Annual Plan 1990-91 : Rs. 30 Lakhs.**

This is a popular and successful programme and needs to be carried forward. The details are indicated below:-

(a) **STRENGTHENING OF THE EXISTING PIGGERY FARMS (ON GOING)**

The existing three piggery farms will be strengthened by addition of new stock, building construction etc. wherever required.

(b) **DISTRIBUTION OF BREEDING BOARS (ON GOING)**

The breeding boars will be maintained in each of the Veterinary treatment centres for cross breeding with the local breeds. The progressive farmers will be provided with good quality boars as done earlier with subsidy for maintenance.

(c) **PIGGERY DEMONSTRATION (NEW)**

In each of the Veterinary treatment centres it is proposed to maintain (10+1) piggery unit for demonstration to the public and during the Eighth Five Year Plan it is proposed to set up 50 such units. The piglets produced from these units will be distributed to the promising pig breeders for multiplication.

(d) **NEW PIGGERY FARMS (NEW)**

In the North tribal areas where there is big demand for pigs, it is proposed to set up two farms that is one at Dzongu and the other at Bop. The proposed strength of these farms will be 50 sows. Hence adequate provision has to be made for building construction & purchase of stock and feed. These farms will act as a demonstration centre for the poor tribal farmers.

(e) **SUBSIDY ON PIGGERY FEED**

In order to popularize the piggery schemes it is important that the farmers be provided with the balanced piggery feed. This venture will not only improve the quality of pigs but at the same time the farmers would fetch better price for the quality pork. Under this scheme, it is proposed to cover 50 per cent of the piggery population in Sikkim. The subsidy component would be 50 percent for schedule tribe schedule caste and 30 percent for the general poor farmers.

(f) **ASSISTANCE TO THE PROGRESSIVE FARMERS UNDER BANKABLE PROJECT IN PIGGERY FARMING**

It is proposed to assist the progressive farmers in the State to the tune of 25 percent of the total capital cost in setting up piggery farms. The subsidy component will be remitted to the capital expenditure incurred in buying stock and construction of modern piggery sty.

A total of Rs.200 lakhs is proposed for this schemes.

**(VI) SHEEP AND GOAT DEVELOPMENT****Eighth Plan: Rs. 35 lakhs****Annual Plan 1990-91 : Rs. 5 Lakhs.****A. SHEEP DEVELOPMENT**

Raising of sheep has been a traditional activity amongst the people of border areas in North Sikkim and certain communities in South and West district. During the Fifth and Sixth Five Year Plans, a specialised carpet and blanket industry was established in North Sikkim and similar industries were set up in West District for the manufacture of felt clothes like LUKUNI and RARI. The demand of both mutton and wool is growing steadily in the State. Hence a proper programme for faster development in this sector to fill in the gap of demand and supply is very essential. The department proposes to take up the following schemes during the Eighth Five Year Plan.

**I. STRENGTHENING OF INFRASTRUCTURE OF THE EXISTING FARMS**

The existing sheep farms will further be strengthened by addition of new exotic stock and the production of rams will be stepped up to meet the demand of the public breeding stock. Side by side preservation of the gramplasm of the existing indigenous breeds of BANPALA and TIBETAN SHEEP will be taken up in these farms. The fodder production, developmental breeding grounds, fodder conservation, construction of sheds and buildings wherever necessary will be taken up during the Eighth Five Year Plan.

**II. SCHEMES TO BENEFIT THE BREEDERS/SHEEP HERDS (NEW)**

In Sikkim a large number of shepherds especially the extremely weaker section of the people migrate to higher altitudes with their sheep flock for summer grazing. These poor shepherds have not been able to increase their flock size as well as to provide better health and management care. Hence, if proper subsidy is provided to these shepherds, they will be in a position to not only increase their flock size but at the same time enhance the production of quality wool and mutton.

The sheep farmers with flock size of (50-250) are proposed to be covered under this scheme. The details of the subsidy to be promoted under this scheme are as follows:-

1. Purchase of breeding stock	— 50%
2. Insurance	— 100%
3. Cost of equipments	— 50%
4. Cost of shed construction	— 50%
5. Cost of feed and mineral supplement	— 50%
6. Veterinary Aid.	— 100%

**II. SURVEY OF MIGRATORY ROUTES OF SHEEP AND THEIR MANAGEMENT**

During the Fifth to Sixth Five Year Plans, the temporary facilities including transit camps were provided to the migratory flocks. Health cover and mass treatment against internal parasites were also provided. Thus it is very important to identify the migratory routes, grazing ground, mode of housing and the condition of the route as well as the village from where the migration originates. These informations will be very useful for proper planning and development of the sheep husbandry. Studies on availability of fodder resources on the grazing grounds would also be taken up side by side.

**B. GOAT DEVELOPMENT**

A new Goat farm has been established at Mangalbarey during 1988-89. However, owing to wide spread occurrence of soil erosions, especially on the steep slopes where the goats graze, farming is slowly being discouraged. However the existing goat farms will be continued without any further expansion.

For the Sheep & Goats development programmes an outlay of Rs.35 lakhs is proposed.

## VII) ANIMAL HUSBANDRY STATISTICS

**Eighth Plan: Rs. 30 lakhs**

**Annual Plan 1990-91 : Rs. 5 Lakhs**

The data-base relating to the Animal Husbandry and Dairying sector continues to be weak. The only major activities are collection of data relating to livestock numbers through livestock census carried out every five years and estimation of production on the basis of samples relating to milk, eggs and wool. No other statistics at the State or district level is either compiled or released regularly. The main problem in this sector is due to the non-availability of requisite machinery at the district and lower level and absence of a regular system for the collection of reliable, timely, accurate and comprehensive statistics relating to livestock and their production. During the Eighth five Year Plan, it is proposed to deal with this problem. The following programmes would be taken up:-

### I. (i) ANIMAL HUSBANDRY STATISTICAL CELL AT THE STATE HEAD QUARTERS (CONTINUING)

A small Statistical Cell was opened at the Head Office under ICAR Sikkim in the Sixth Five Year Plan. The State took over this in the Seventh Five Year Plan. The statistical Cell continued with an outlay of Rs. 15 lakhs. Presently, there are three Statistical Officers, four computers and four field Enumerators. The existing staff is not sufficient for the collection of reliable, timely, accurate and comprehensive statistics relating to livestock and their production in the different parts of the State. Hence during the Eighth Five Year Plan, this section would be strengthened to meet the additional requirements of co-ordinating the work of new schemes proposed to be taken up in due course of time. A livestock cell will be created and made part of the Head-quarter machinery.

### (ii) CREATION OF DISTRICT LEVEL ANIMAL HUSBANDRY STATISTICAL CELL (NEW)

In order to strengthen the data base at District Level it is proposed to create district level statistical cell in each district. This cell would be responsible for the collection, analysis, compilation and interpretation of the livestock data in terms of production, Management, area under fodder production, yield estimation of the concerned districts, in terms of milk, wool and meat production. The cell will be manned by a Veterinary Graduate.

### (iii) EDUCATION AND TRAINING IN ANIMAL HUSBANDRY AND DAIRY STATISTICS (NEW)

The work of collection, analysis, compilation and drawing conclusion from the data at present in the State is handled by persons not familiar with the basic statistical techniques. It is necessary to provide short term training on the subject for effective functioning. The training is also required to be provided to the staff responsible for analytical studies.

### II. (i) CENTRALLY SPONSORED SCHEMES

During the Seventh Five Year Plan, the State took up centrally sponsored schemes relating to sample surveys on estimation of production of milk, eggs and wool. The main objective of this scheme is to prepare reliable estimates of the livestock products at the district and state levels. This scheme will be continued.

A total provision of Rs. 30 lakhs is proposed for this activity.

### (VIII) OTHER LIVESTOCK DEPARTMENT

**Eighth Plan: Rs. 40 lakhs**

**Annual Plan 1990-91 : Rs. 6 Lakhs.**

Under the other livestock development, the proposed schemes to be taken up are establishment of Yak Breeding Farm and equine breeding farm.



## I. PROJECT ON YAK BREEDING

The dry high zones of Sikkim adjoining Tibet and Nepal in the North have extensive grassy meadows, suitable for grazing Yaks, Sheep and Goats.

Yak has a special place in the economy of people inhabiting areas with an altitude ranging from 2,500 to 5,000 metres above Sea Level. Yak (Bob Peephagus) is known for its ability to withstand low temperature, sure-footedness and capability to thrive on coarse fodder at high altitude where no other large animal can survive. It is the only species which produces milk, meat, hair fibre and also provides transport in high altitude. Yak is an exceptionally hardy animal and is very popular with the tribes of Lepcha and Bhutia on account of its surefootedness and ability to thrive even in a severe winter with snowy environment. Thus Yak is also called 'Camel of Snow'.

### STATUS OF YAK IN SIKKIM

In Sikkim, Yaks are reared in the North Eastern ranges bordering Tibet and Bhutan and the Western region bordering Nepal. Three kinds of Yaks are described in the Gazette of Sikkim. They are Lho-Gyag found in North Sikkim (large size Yak found in West Sikkim), Bho-Gyag (smaller than Lho-Gyag found in North Sikkim) and 'A-gu' polled Yaks found in higher altitudes of the state.

In Sikkim the Yak population is estimated around 4000 as per livestock census - 1982. The number of Yaks is showing a decreasing trend. This can be seen from the Yak population of 1977 livestock census wherein it has been estimated to be about 5000 nos. As such special emphasis is required towards the preservation of the native yak. Secondly emphasis is also necessary towards the multiplication of its numbers, through suitable breeding programmes.

Cross-breeding between yak and local cows is practised in Sikkim on a limited scale. The cross-bred progeny between yak bull and local female cows is called 'joe'. The male joe is sterile. The female joe yields more milk (3 to 4 litres). They are more hardy and tolerate heat at lower altitudes as well as high altitudes whereas the pure yaks can not thrive at lower altitudes.

The cross-bred progeny mule joe is best suited for drought purposes especially for transportation and the female can yield more milk than that of pure female yak.

The cross-breeding programme can bring forth improvement in the economic condition of tribal masses through production of more milk and also through greater ability to carry loads both at higher and lower altitudes.

The economic importance of yaks for the hill tribes particularly of the remote high altitudes is apparent from the facts enumerated above. Accordingly, special emphasis is required on increasing its number and productivity in respect of meat, milk and fibre through suitable strategies of breeding programme, management practices and improvement of forage. The State possesses ample potentialities in the shape of wide spread grassy meadows at the high altitudes in the north, some parts of the East and West Sikkim which remain inadequately utilized. Suitable strides can be made in this direction by establishing a yak breeding farm and pasture development station.

Establishment of such farms at Government level can also undertake detailed studies in the field of physiology, reproduction biology, health and nutrition aspects for laying down the requisite foundation for technical advancement of yak husbandry.

The details of the project are listed below :

### OBJECTIVE OF YAK BREEDING FARM

1. To improve upon the present native yak through selective breeding and preserve the indigenous breed.
2. To improve upon its number and adaptability in respect of meat and milk through cross-breeding programme.
3. To lay requisite foundation for technical advancement of the yak husbandry in the State.
4. To develop new strain of yak by crossing, in order to improve the stock.

## RESOURCES/FINANCIAL IMPLICATION

The State department of Animal Husbandry & Vety. Services need to acquire land measuring about 100 acres either at North Sikkim or East Sikkim. Basic infrastructure viz: construction of sheds., Quarters, land development, pastures developments etc. is proposed to be covered by the project. Local purchase of breeding stock of yak and either local female selected cow or female jersey cows from other states will also be taken care of by the project.

### Status of Equine Husbandry.

Most of the horses and ponies in the State of Sikkim are originally of Bhutia breeds but the purity of the breed has not been maintained due to the faulty system of mating. Pure Bhutia breed of horses are however available at Nepal named 'Mustang' horse (Bhutia breed). Sikkim State may improve and revive its original breed i.e. Bhutia breed by crossing local female with Mustangs breed of Nepal in a systematic way. The equine population in four districts as per 1982 census is given in Table I.

### Equine population during 1982 Census in Sikkim

	District	Male	Female	Total
Horse and Ponies	East Sikkim	75	99	174
	West Sikkim	16	11	27
	North Sikkim	583	216	799
	South Sikkim	37	11	48
	Total in Sikkim	711	337	1048

### Equine Development

As indicated by the Government of India, Ministry of Agriculture, vide letter No. 1.281/85 LDT of 1st January, 87, the people in hilly region and in some other States particularly in arid Central and Northern regions of the country depend upon horses and ponies in various degrees as a means of their sustenance. In Sikkim the importance of raising the stock has not been realised and during the 8th Plan it is proposed to implement a scheme for genetic upgradation under the relevant Centrally Sponsored Scheme.

## Programme and objectives during the Eighth Plan

As indicated by the Ministry of Agriculture, of the indigeneous breed of horses in the country, only a few good specimens are to be found at present and but due to lack of any organised developmental activity in the past, these specimens are also disappearing.

Therefore, the strategy to be adopted is to preserve the breed exploiting existing one or to develop a Haflinger breeding farm by cross breeding local with non-descriptive hill ponies.

During the Eighth Plan, it is proposed to set up the equine breeding farm for reviving the original breed of the Sikkim State and for this either Pangthang Farm may be converted into equine breeding farm or land may be acquired, measuring 20 acres near Gangtok.

### Proposed project

It is proposed to start one Equine Husbandry Breeding Farm under the Centrally Sponsored Scheme on 50:50 basis with the State Government in the East District.

### Breeding Policy

In keeping with the recommendation of Government of India, Ministry of Agriculture, the equine breeding policy of the State aims at maintaining the indigeneous breed by selective breeding by upgrading the local by known original breeds.

### Choice of Breeds

Exploitation of 100 percent Bhutia breeds will be resorted to since horse breed in Sikkim is originally Bhutia.

## Resources

The State Department of Animal Husbandry needs to acquire land measuring about 15 to 20 acres somewhere near Gangtok or Pangthang Cattle Farm which may be converted into Equine Husbandry Farm 5 (five) numbers of stallions will be procured from Nepal Government and 50 nos. of broodmares also will be procured locally in the State.

50 percent of the cost will be provided by the Central Government under Equine Breeding policy and rest 50 percent will be met by the State Government.

For the above mentioned programmes of Yak & equine breeding a total provision of Rs. 40 lakhs is proposed.

### (IX) EXTENSION AND TRAINING

**Eighth Plan: Rs. 65 lakhs**

**Annual Plan 1990-91 : Rs. 9 lakhs**

During the Eighth Five Year Plan, two main training centres will be established one at Gangtok for North and East, and the other at Karfector for South and West. The training courses will cover both the animal production and disease control. Periodic training will be imparted to the officers, field level workers and to the farmers. Similarly officers will be sent for training to different universities in the country. Laboratory technician courses will be started for meeting the requirement of disease investigation laboratories, feed and fodder analysis centres and meat quality testing centres. It is proposed to create a full fledged independent institution under a Director, Joint Director and a Deputy Director so that it could take up training and extension independently. Periodic calf rallies film shows and livestock shows will be organised both at the District and State level to educate and encourage the farmers to take up scientific cattle breeding.

A provision of Rs. 65 lakhs is proposed for this scheme.

### (X) VETERINARY SERVICES AND ANIMAL HUSBANDRY RESEARCH

**Eighth Plan: Rs. 50 lakhs**

**Annual Plan 1990-91 : Rs. 71 lakhs**

During the Sixth and Seventh Five Year Plans, the Department took up research projects on sheep, goats, poultry and foot and mouth disease control scheme in the State. These projects were sponsored by I.C.A.R. and have now been discontinued. Hence, major emphasis will be on animal research in the Eighth Five Year Plan. The Research Wing will be headed by a Joint Director and there will be some subject matter specialists. The research wing will be divided into Disease Investigation Wing and Animal Production and Dairy Research Wing. This research wing will look into embryo transfer technology, animal productivity through application of biotechnology, available technology on utilizing Celloulesic and Lignin in crop residue, probiotic etc. The finding of these researches will be available for common farmers to assist in major breakthrough of livestock production.

It is proposed to provide Rs. 50 lakhs for this scheme.

### (XI) PROCESSING AND MARKETING OF MEAT

**Eighth Plan: Rs. 35 lakhs**

**Annual Plan 1990-91: Rs. 5 lakhs**

With a view to introduce a more hygienic and human method of slaughter and economic utilisation of bye-products, a modern slaughter house at Majitar has been initiated in 1988-89 financial year at an estimated cost of Rs. 80 lakhs. Providing wholesome clean good quality meat to the people is one of the main objectives of the establishment of slaughter house.

A large number of animals like bullocks, buffaloes, sheep, goats, poultry birds and pigs are brought into Sikkim from the neighbouring plains of West Bengal and Bihar. Only 30 to 40 percent of the total consumption is produced in Sikkim itself. From the records of Rangpo Check-post opened in 1982 a total nos. of 83,000 cattle, 3000 buffaloes, 26,000 sheep, 114,000 goats and 5,000 pigs were brought in Sikkim during a period of three

years i.e. 1982 to 1985. After the introduction of the Sikkim Livestock Products Control Act 1985, entry fees on animals coming from outside are levied. An average sum of Rs. 5 lakhs is collected every year as Check fee.

During 8th Five Year Plan, a separate Corporation known as Sikkim Livestock Processing and Development Corporation is envisaged. It will be responsible for sale, processing and collection of meat in Sikkim. This project will greatly benefit the poor farmers and the consumers will get good quality meat. This is in addition to the Sikkim Livestock Development Corporation (S.L.D.C.) at Tadong.

For augmenting the facilities in the slaughter house under construction in terms of refrigerated vans & for establishing small but modern slaughter houses in the South & West Sikkim districts, a provision of Rs. 35 lakhs is proposed.

#### (XII) LIVESTOCK INSURANCE (NEW)

**Eighth Plan: Rs. 20 lakhs**

**Annual Plan 1990-91: Rs. 3 lakhs**

Every year sizeable animals are lost due to natural calamity, infectious diseases, accidents etc. and the poor farmers turn to the Government for aid. Hence, in order to help the farmers, it is proposed to ensure the animals especially the cross breed in the following proportions.

- |                                    |                                |
|------------------------------------|--------------------------------|
|                                    | - Insurance Premium to be paid |
| 1. Small & Marginal farmers        | - Free of cost first 3 years.  |
| 2. Schedule Tribe & Schedule Caste | - Free of cost first 3 years.  |
| 3. General Farmers                 | - 50 percent first 3 years.    |

Under this programme over fifty thousand farmers will be benefited & they will be in position to purchase the stock for replacement without the government aid. The livestock of government farms, public undertaking sector, milk union will also be covered. A separate cell both at the district and Head Office will be created for proper planning, monitoring and payment at a short span will be ensured.

#### (XIII) DAIRY DEVELOPMENT PROGRAMME :

**Eighth Plan : Rs. 110 lakhs**

**Annual Plan 1990-91 : Rs. 17 lakhs**

The dairy development programme in the State was initiated in the year 1976. A Centrally Sponsored Scheme costing Rs. 1.63 lakhs was approved by the Government of India. Under this scheme two dairies were set up with the capacity of handling 10,000 litres at Tadong, East Sikkim and 5,000 litres at Karfectar in South Sikkim. These dairies were commissioned however, only in 1981 and 1982 respectively. The Sikkim Milk Union as an apex cooperative was also established and from 1982 onwards 90 milk societies have been organised.

The operation Flood II programme has so far been implemented in the State with a target of organising 160 milk societies. However, while total cost of the project was Rs. 92 lakhs only, Rs. 76 lakhs has so far been made available, as a result of which there are substantial shortfalls in achievements. The Sikkim Milk Union has not also been able to generate any surplus and continues to rely on subsidies primarily because of the fact that the cost of collection of milk from the remoter and hilly areas has proved to be extremely high and cannot be covered from the realisation through sale of milk. Further the quantum of collection has not also shown appreciable increase. Efforts are therefore required to bring down the cost of collection while increasing the quantum of milk collected. The question of implementing Operation Flood III in the State has been discussed with the NDDB and it has been recognised that the programme can be implemented only if a substantial subsidy element is built into the scheme. Further, it is expected that during the Eighth Plan there will be considerable improvement recorded in the performance of the Sikkim Milk Union. It cannot however be denied that the Milk Union has been able to organise a number of cooperatives and generate a regular and reliable marketing channel for the milk producers. The operation therefore have to be seen in the wider context of the socio-economic benefits that the Milk Union has been able to generate.

The coverage of the Milk Union has so far been in the three districts of East, South and West. However, with the establishment of a cheese plant in North Sikkim, it has become important to promote and expand milk production in a very big way. It is therefore proposed to establish a number of cooperatives in the North District and provide a variety of services so that milk produced in that area goes up substantially. For this programme Rs. 110 lakhs will be required during the Eighth Plan.

**(XIV) DIRECTION AND ADMINISTRATION**

**Manpower Development :**

**Eighth Plan : Rs. 20 lakhs**

**Annual Plan 1990-91 : Rs 3 Lakhs**

With the increasing responsibilities and expansion in the activities of the Department the need for strengthening the administrative machinery particularly in the area like health cover has been acutely felt. At present, there are only nineteen officers dealing with veterinary services and seventeen officers dealing with other animal husbandry programmes related to productivity. Some strengthening is also required at the head office particularly in regard to the accounts section. Further the position regarding attendants, dressers, etc. in the veterinary hospitals and dispensaries is extremely unsatisfactory and there is considerable need for augmentation in these areas. It is therefore proposed to create the required posts in the area of veterinary services in terms of doctors, dressers, inseminators and attendants. In the area of accounts, basically senior accountants and accountants will be posted in the districts so that this area receives proper attention. Marginal strengthening of the headquarters is also envisaged. The total financial requirements for implementing the above programme will be Rs. 20 lakhs.

Out of a total provision of Rs. 1625 Lakhs for the Eighth Five Year Plan, Rs. 252 Lakhs has been earmarked for Annual Plan 1990-91. Schemewise allocation has been detailed in GN-2 statement.

**(XV). ASSISTANCE TO ANIMAL HUSBANDRY COOPERATIVES**

**Proposed Eighth Plan Outlay-**

**Rs.30 lakhs**

**Annual Plan 1990-91 : Rs. 7 lakhs**

The cooperatisation programme in the Animal Husbandry Sector has so far been confined to Dairy Cooperatives and it is proposed to take a new scheme for introducing cooperatives in regard to poultry development, piggery development as also for fodder cultivation. Such programmes can help in rearing birds and animals on large scale and greatly facilitate marketing of the products through cooperative channels. The programme of Assistance will be to provide share capital assistance, managerial as well as rental subsidies to the cooperatives.

**(XVI). INVESTMENT IN PUBLIC SECTOR UNDERTAKINGS:**

**Eighth Plan : Rs.50 lakhs**

**Annual Plan 1990-91 : Rs. 15 lakhs**

At the moment the Animal Husbandry Department has the Sikkim Livestock Development Corporation, the Sikkim Organics and the Sikkim Livestock Processing and Developing Corporation. The Sikkim Livestock Processing & Developing Corporation is responsible for the construction of the slaughter house. The other two corporations have been responsible for undertaking programmes for poultry and piggery development, marketing of hides and skins and producing organic products from animal sources. The organisations need to be supported further for investment in order to see that their activities are expanded. In particular to the SLDC needs considerable support as it is also responsible for managing the Cheese Plant which has come up in North Sikkim as part of the Tribal Development Programme. The operation of Cheese Plant will generate considerable demand for milk produce in the area and provide employment opportunity for the local people. A total provision of Rs. 50 lakhs is proposed for the Eighth Plan period with the provision of Rs. 15 lakhs for the year 1990-91.

## DRAFT EIGHTH FIVE YEAR PLAN ( 1990-95 ) AND ANNUAL PLAN - 1990 - 91

## HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE

## DEPARTMENT OF ANIMAL HUSBANDRY &amp; VETERINARY SERVICES Statement GN-2

(Rs. in lakhs)

Code No.	Name of the Scheme/ Project	Seventh Plan Outlay (1985-90)	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	of which capital content	Annual Plan 1990-91 Proposed Outlay	of which capital content
1	2	3	4	5	6	7	8	9
101240400 DAIRY DEVELOPMENT								
001	Direction & Admn.	10.00	4.10	2.00	5.00	—	1.00	1.00
102	Dairy Development Projects (North Dairy Project)	35.00	28.11	8.00	25.00	5.00	4.00	—
191	Assistance to milk Union ( Under Operation Flood Project)	30.00	39.00	15.00	80.00	—	12.00	—
	Total Dairy	75.00	71.71	25.00	110.00	5.00	17.00	1.00
101240300 ANIMAL HUSBANDRY								
109	Extension & Training	50.00	26.24	8.00	65.00	10	9.00	2.00
001	Direction & Adm.	15.00	9.91	3.50	20.00	—	3.00	—
101	Vety. Service & Animal Health	160.00	125.98	42.00	250.00	50	47.00	10.00
102	Cattle & Buffalo Development	165.00	132.54	38.00	250.00	50	40.00	9.00
103	Poultry Development	110.00	75.56	21.00	250.00	50	38.00	10.00
104	Sheep & Wool Development	60.00	25.77	6.50	35.00	5	5.00	2.00
105	Piggery Development	120.00	53.46	18.00	200.00	40	30.00	6.00
106	Other Livestock & Poultry Development	15.00	22.63	11.00	40.00	5	6.00	2.00
107	Feed & Fodder Development	120.00	78.59	22.00	250.00	—	32.00	—
108	Insurance of Livestock & Poultry	—	—	—	20.00	—	3.00	—
111	Meat Processing	22.00	30.00	17.00	35.00	35	5.00	5.00
113	Admn./Inv. & Statistics	15.00	11.77	5.00	30.00	—	4.00	—
195	Assistance to A.H Cooperatives	—	—	—	30.00	—	4.00	—
190	Investment in Public Sector & other Undertaking	30.00	20.00	5.00	50.00	—	7.00	—
800	Other Expenditure ( Vety. Res. )	49.00	40.71	18.00	70.00	—	14.00	—
TOTAL		931.00	663.16	215.00	1595.00	245.00	247.00	46.00
GRAND TOTAL		1006	734.87	240.00	1705.00	250.00	264.00	47.00

## CHAPTER V

**Fisheries**

1. Pisciculture is an important area of economic activity particularly in the context of enabling the rural people to derive incremental income and improve their living standards. The State's natural resource endowment with an extensive network of fresh water rivers, lakes and streams offers conditions which are conducive for development of inland fisheries where a variety of carps and trouts, can thrive.

2. With a view to exploit these natural resource endowments a Fisheries Wing was created within the Forest Department in 1976. Since then considerable progress has been recorded mainly in terms of building up the administrative machinery with trained personnel, establishment of infrastructures in terms of fish seed production farms and demonstration units, and promotion of fish culture. During the VIIth Plan, seed production farms have been established at Menmoitse, Geyzing, Soreng, Rangpo, Yoksom and Gangtok and in addition to these, new rearing and production farms were created at Lingmo, Pakyong, Lingdem and Barapathing, Rorathang, Lachung and Dzongu. In terms of fish seed production, the anticipated achievement by the close of the VIIth Plan is estimated to be of the order to 0.90 million fries and 0.06 million fingerlings. The expected achievement in regard to fish production would be 90 tonnes against the terminal year target of 100 tonnes during the VIIth Plan. In order to meet the seed requirement for extensive propagation, 1.93 hectares of nursery area have been created.

3. While the impact of the development efforts made so far has been noteworthy, the objectives of encouraging fish culture among farmers has to a large extent remained unfulfilled. The inherent social taboos and religious values of the people are attributable to the slow take off in respect of development of fisheries in the State. As an occupational activity fishery is, by tradition, confined to a very insignificant segment of a class of scheduled caste community locally known as "Majis". The people's attitudes in general is however gradually changing and while fish meat is now no longer an uncommon item

of food, there are increasing interests among farmers belonging to other communities to take to fishery to supplement their normal occupational activity. Taking into account this encouraging development of the strategy in the VIIIth Plan will be addressed to the following areas:-

1. Enhancing the production of fish and fish seeds in Government farms;
2. Intensive conservation measures;
3. Promotion of fish culture among farmers;
4. Education and training;
5. Generation of revenue from production farms;
6. Research efforts to identify new species of fish which can be introduced in the State.

During the VIIth Plan against the approved outlay of Rs. 120 lakhs the progressive expenditure is estimated to be of the order of Rs. 88.18 lakhs. The shortfall in the expenditure has been mainly attributable to delay in certain construction programmes due to non availability of construction materials.

For the VIIIth Plan the total proposed outlay is Rs. 235 lakhs and Rs. 50 lakhs for the Annual Plan 1990-91. The step-up in the outlay is kept at a conservative level primarily because the emphasis during the VIIIth Plan will be on consolidation and better utilisation of the infrastructure already built up.

Scheme wise details are as follows:

#### 4. EDUCATION & TRAINING

**Eighth Plan : Rs. 7.50 lakhs**

**Annual Plan : 1990-91 : Rs. 1.50 lakhs**

The activities under this scheme include providing in service training to the personnel in the department. So far 22 Officers from the Department have already been trained in recognised institutes outside the State. Apart from providing training to the Departmental personnel it is also proposed to organise training and demonstrations for the benefit of farmers so that the number of private farm units are multiplied. Post

training needs, such as supply of fish seeds, subsidy on farm construction cost, technical counsel, etcetra will also be adequately taken care of. A total provision of Rs.7.50 lakhs has been proposed for the Plan. For 1990-91 the outlay proposed is Rs.1.50 lakhs.

#### 5. SURVEY & RESEARCH:

**Eighth Plan : Rs. 2.50 lakhs**

**Annual Plan 1990-91 : Rs. 0.50 lakhs**

This also constitutes an ongoing activity involving survey and investigation of resources relevant for development of fisheries. The Department has a well established aquarium where selective research programmes are undertaken. This facility will be upgraded and research activities also continued. Research works to study adaptability of other varieties of fish will also be undertaken. Under this scheme the function of generating data will also be taken care of. The total proposed outlay amounts to Rs.2.50 lakhs with Rs.0.30 lakhs in the initial year.

#### 6. TROUT DEVELOPMENT

**Eighth Plan : Rs. 48 lakhs**

**Annual Plan 1990-91 : Rs. 9.50 lakhs**

The existing trout seed production farms are proposed to be further expanded and necessary infrastructure also upgraded. The farms at the present moment are adequate only to the extent of meeting the demand for fish seeds from the East and West District. During the VIIIth Plan it is proposed to establish a trout farm at Thangu with adequate rearing space to produce 1.2 lakhs seeds. Provision of fencing within this farm as also construction of residential facilities are also to be provided. In addition to the above, a trout unit with all the building requirements is also envisaged at Bay Dzongu. The existing farms at Lachung, Yoksom and Memochu will be upgraded and modernised. It is also proposed to renovate the lake at Uttaray and provide for protective works, barricading including main sluice distribution system, fencing and chowkidar's quarters. It is also proposed to establish new hatcheries at Rimbi, Karzi, and Yakshey. For the VIIIth Plan Rs.48 lakhs has been proposed of which Rs.9.50 lakhs is envisaged in the first year of the Plan.

#### 7. DEVELOPMENT OF CARP

**Eighth Plan : Rs. 70 lakhs**

**Annual Plan 1990-91 : Rs. 19.00 lakhs**

As in the case of trout, the existing facilities for production of carp seed are also inadequate vis-a-vis the projected demand. As against the estimated demand in terms of fish seeds which is likely to be of the order of 40 million, the capacity from the existing farms is only half a million. Therefore, during the VIIIth Plan it is proposed to establish seed production farms at Borfong, Lachen, Rothak and Rorathang. All these farm complexes will be provided with residential as well as non residential buildings. Construction of two hatcheries exclusively for experimenting on Chinese technology of fish culture is also contemplated within the existing farms. The provision includes the state share of Rs.22 lakhs for a CSS in respect of modern hatchery complexes. Apart from developing new farm infrastructure it is also proposed to modernise and augment the facilities in the existing farms. A total outlay of Rs.70 lakhs has been proposed under the scheme out of which the outlay proposed for 1990-91 Annual Plan is Rs.18.50 lakhs.

#### 8. CONSERVATION OF REVERINE FISHERIES

**Eighth Plan : Rs. 30 lakhs**

**Annual Plan 1990-91 : Rs. 5 lakhs**

Under this scheme the activities involving conservation measures will be intensified. It is proposed to develop residential facilities for the field personnel in charge of conservation programmes so that they can ensure constant vigil over poaching activities at the field level. Construction of a quarter for AFDO as well as construction of anglers' hut has been envisaged during the plan. The proposed VIIIth Plan allocation for this scheme is Rs.30 lakhs of which Rs.5.00 lakhs has been proposed for 1990-91.

#### 9. DEVELOPMENT OF MAHSEER

**Eighth Plan : Rs. 15 lakhs**

**Annual Plan 1990-91 : Rs. 4 lakhs**

In the VIIth Plan, a breeding area for Mahseer has been developed by impounding water along the Rangeet river at Bagua in South Sikkim. Total investment of Rs.8.50 lakhs has already been made for creating the structures for impounding water including flood protection at certain



points. The viability of Mahseer breeding along this river system has been established after proper survey and investigation for a number of years and it is expected that the breeding programme will be a step in the right direction to conserve and propagate this variety of fish primarily for sport within our river systems. The proposed outlay of Rs. 15 lakhs for the VIIIth Plan under this scheme is specifically meant to operationalise this breeding unit and also construct residential and non-residential facilities at the project site. Further two hatcheries is also proposed to be established at Bagua alongwith nurseries and other infrastructure. The outlay proposed in the year 1990-91 is Rs.4 lakhs.

#### 10. OFFICE ACCOMMODATION

**Eighth Plan: Rs. 10 lakhs**

**Annual Plan 1990-91 : Rs. 2 lakhs**

The outlay of Rs. 10 lakhs proposed under this scheme is intended for construction of 8 unit quarters for class III-IV category of personnel. Presently only about 25 percent of the personnel have been provided residential quarters. For the year 1990-91 provision of Rs. 2 lakhs has been envisaged for this scheme.

#### 11. DIRECTION AND ADMINISTRATION

**Eighth Plan: Rs. 30 lakhs**

**Annual Plan 1990-91 : Rs. 4 lakhs**

The existing organisational set up headed by Joint Director needs to be strengthened and upgraded into a full fledged Directorate. For this purpose it is proposed to create posts of a Director, one Deputy Director, one Accounts Officer, one Accountant, one Steno, three supervisors/ Inspectors and three Drivers. The requirement of fisherman and chowkidars will be met by appointing personnel on muster roll. In order to provide adequate mobility to the Departmental personnel, provision of a vehicle is also felt necessary. A total outlay of Rs. 30 lakhs has been proposed for the VIII th Plan with Rs. 4 lakhs in the initial year.

#### 12. BENEFICIARY ORIENTED SCHEME

**Eighth Plan: Rs. 2 lakhs**

**Annual Plan 1990-91 : Rs. 0.50 lakhs**

Under this caption, three new schemes have been proposed which are designed to promote fish culture in a big way. The contents of these schemes have been outlined below.

a) The traditional gears used by local fisherman are primitive and inefficient. In order to enable fisherman most of whom belong to the poor and weaker sections, to improve their efficiency, it is proposed to distribute nylon fishing nets with lead sinker to deserving beneficiaries on subsidy basis. The subsidy amount per beneficiary will be Rs. 500.00 and it is targetted to cover 200 fisherman during the plan period. Provision of Rs. 1.00 lakh has been proposed during the plan period and in the first year an outlay of Rs. 0.20 lakh has been proposed.

b) Increasing the production of fingerlings in private ponds is imperative to meet the seed requirements targetted during the VIIIth Plan. The capacity of production from Government farms falls short off the projected demand and therefore the gap will have to be covered out of production from private farms. Under the scheme of things envisaged, it is proposed to encourage establishment of seed production farms in farmers' field and for which it is proposed to provide a package of assistance in terms of subsidy on cost of construction of pond and other inputs as feed, fertilizer etcetra. Necessary technical advice will also be made available. During the plan, it is targetted to establish 50 units with rearing area of 0.01 Hec. to 0.2 Hec. each. The production target from the private farms is expected to be of the order of 5 lakhs seeds. A total outlay of Rs. 0.50 lakh has been accordingly projected for the plan with provision of Rs. 0.15 lakhs during 1990-91.

c) The concept of integrating fish culture with paddy cultivation is prevalent in States like West Bengal and can be introduced in Sikkim. It is therefore proposed to implement a scheme during the VIIIth Plan whereby farmers will be provided subsidies to establish the required facilities. In all 50 farmers are targetted to be covered under this scheme and an outlay of Rs. 0.50 lakhs has accordingly been proposed. The target set for 1990-91 is 15 farmers corresponding to which Rs. 0.15 lakhs has been proposed.

The overall outlay for the above three new schemes amounts to Rs. 2.00 lakhs for the entire Plan period and Rs. 0.50 lakhs for the year 1990-91. The corresponding physical targets are 300 and 70 beneficiaries.

**FISH FARMERS' DEVELOPMENT AGENCY****Eighth Plan: Rs. 20 lakhs****Annual Plan 1990-91 : Rs. 4.00 lakhs**

The capacity of fish production from the riverine sources cannot be expected to increase very substantially. It is therefore considered necessary to augment the production level by encouraging fish culture within artificially created ponds. In order to implement this programme it is considered necessary to mobilize support from farmers by providing all necessary assistance in terms of subsidies as well as training and publicity. For this purpose it is proposed to form a small Farmers' Development Agency to act as the nodal agency for farmers participation and support and also formulating various package of programmes for encouraging development of fish culture in a

big way. For this scheme it is proposed to avail assistance under the Centrally Sponsored Scheme from the Government of India. The Agency will be established by drawing in trained personnel from the existing Fisheries Department on deputation. A small organisational set up is envisaged comprising a Chairman alongwith two extension Officers, one Junior Engineer and clerical staff. It is proposed to cover 200 farmers during the period of the plan. Since the proposal is to be funded as a Centrally Sponsored Scheme the extent of provision in the State Plan is, for the moment, tentative. However, it is necessary to have this scheme reflected in the plan so that the efforts to increase fish production farmers can be substantially increased. A token provision of Rs. 20 lakhs has been proposed during the plan period, as part of State's contribution. The outlay proposed in 1990-91 is Rs. 4.00 lakhs.

## DRAFT EIGHTH FIVE YEAR PLAN ( 1990-95 ) AND ANNUAL PLAN - 1990 - 91

## HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE

DEPARTMENT : FISHERIES.

Statement GN - 2

( Rs. in lakhs )

Code No.	Name of the Scheme/Project	Seventh plan outlay 1985-90	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed outlay Eighth plan 1990-95	Of which capital content	Annual plan 1990-91 proposed outlay	Of which capital content
1.	2.	3.	4.	5.	6.	7.	8.	9.
101 240500	FISHERIES							
001	Direction & Adm.	10.50	5.61	2.65	30.00	—	4.00	—
101	Inland Fisheries							
(i)	Survey & Research	1.00	0.40	0.50	2.50	—	0.50	—
(ii)	Trout Development	35.75	20.85	5.25	48.00	30.00	9.50	6.00
(iii)	Development of Carp	45.40	22.86	5.27	70.00	52.00	19.00	17.00
(iv)	Conservation of Riverine fisheries	17.85	7.48	3.83	30.00	23.25	5.00	4.75
(v)	Development of Mahseer	7.00	8.02	2.00	15.00	11.25	4.00	3.75
(vi)	Baneficiary oriented Scheme	—	—	—	2.00	—	0.50	—
109	Education & Training	2.50	0.60	0.50	7.50	—	1.50	—
190	Fish farmer's development Agency	—	—	—	20.00	—	4.00	—
	Office accomodation	—	0.24	—	10.00	10.00	2.00	2.00
	Total	126.00	66.06	20.00	235.00	127.00	50.00	33.50

## Forest & Wildlife

1. The consciousness in regard to the need for preserving the earth's ecological balance has been greatly enhanced with a number of recent studies underlining the damage that has been caused to the earth's atmosphere by the deterioration in the ozone layer and the increased penetration of ultra violet rays. The excessive discharge of pollutants into the earth's atmosphere due to a variety of reasons has already started posing threats to life supporting system and unless concerted measures are taken it may be difficult to avoid an ecological disaster in the world. The discharge of pollutants into the earth's atmosphere has occurred at a time when the tropical forest throughout the world have also been subjected to extensive degradation by a combination of factors which include growing demand for agricultural land, grazing, for fuelwood and construction material.

2. This situation in the Himalayan belt is one of extreme concern as the entire eco system is facing widespread degradation and has led already to perceptible reduction in the productivity of land, erosion, excessive rain water run off and reduction in ground water discharge. This unfortunate development can have far reaching economic and environmental repercussions not only in the whole of India but perhaps in other parts of the world either through the complex network of global economic inter dependencies or by contact with adjacent eco systems.

3. As the Brandt Commission has rightly observed "when environment is over taxed it does not harm only the countries directly faced with deterioration of the resources base but affects countries through out the eco system of the earth".

4. Sikkim situated as it is in the Eastern Himalayas has a special role to play as regards the maintenance of the ecological balance. Apart from the very fragile eco-systems in the area, due to the geological character of the region and the fact that the major river systems originate in the area, make it incumbent on our part to ensure that the green cover is not only fully preserved but is expanded. Already the incidence of soil instability, loss of top soil, degeneration of good agricultural land and the shrinking of the catchment areas of the river systems is of major

concern. The growth of population and the continued dependence on fuelwood as a major source of rural energy will result in continuous pressure on the limited forest resources. Further the very needs of economic development in terms of road building, building up of power stations, irrigation channels etc. pose a threat to the forest areas. On top of this is the requirements based on defence and security considerations which again have resulted in extensive deforestation.

5. While 36 percent of the State's geographical area is reportedly under green cover recent surveys indicate that around 40 percent of this area is under degradation to some degree or the other. Systematic surveys of the degree of encroachment even in reserve forest has not been undertaken and as a result the area that have been lost and are under threat cannot be accurately projected.

6. All this underlines the extraordinary importance of activities to be undertaken under forestry programmes. No doubt the State has been quite alive to the situation and has discouraged establishment of forest based industries and commercial exploitation of forest resources. The threat from the growing population, the need for agricultural land, the fodder and fuel requirements are however extremely serious and forest programmes will have to take care of these challenges.

7. There has been a progressive step up in the outlays under this sector and during the Sixth Plan Rs. 538 lakhs was provided resulting in among other things, creation of 4,500 hecs. of new plantation. During the Seventh Plan with an outlay of Rs. 950 lakhs it is expected that approximately 10,800 hectares of afforestation would have been achieved. The other major achievements during the Seventh Plan is the organisation of a systematic inventory of forest resources in all the four districts in joint collaboration with the Forest Survey of India. A remote sensing application unit has been established with the help of Science and Technology Department to enable clear understanding of the ground level conditions in the entire State relating to forest. In the Wild life conservation areas physical demarcation the Kanchenjunga National Park was undertaken along with construction of bridle paths, log houses and habitat improvement activities.

The Centrally Sponsored Scheme of social forestry, rural fuel wood plantation, survey and demarcation and silviculture have been implemented though in the area of silviculture a great deal of work is yet to be undertaken.

8. Given the scenario described above the over-all strategy for the Eighth Plan would have to be on the following lines :-

(a) Definite measures to fully conserve the existing forest areas and for this purpose undertake full survey and demarcation of all reserve forest areas.

(b) Intensify protection measures in terms of prevention of encroachment, removal of encroachment, rigorous implementation of the Forest Act, and elimination of illegal fellings.

(c) Rehabilitation of degraded forest by paying specific attention to reforestation of these areas.

(d) Step up the activities of afforestation programmes to enlarge the area under green cover.

(e) Increase the activities under social forestry and Rural fuelwood programmes so that the growing needs of fuel wood in the rural area is to the maximum extent possible satisfied.

(f) Undertake special programmes for the ecologically fragile zones so that these areas can be brought under green cover within the shortest possible time.

(g) Implement specific programmes calculated to conserve the wildlife with particular attention to the endangered species.

9. There is no doubt that the activities of the Forest Department will have to be coordinated with that of the Land Use and Environment Department, in order to achieve results in terms of ensuring soil stability, conservation of environment and preservation of the catchment zones. Apart from these, efforts to wean away people particularly in the rural areas from the present over dependence upon the forest for the energy requirements is also of paramount importance and coordination with the Rural Development Department in particular with its NRSE wing will have to be achieved.

10. Brief details of the schemes which have been proposed to be implemented during the 8th Plan period are given below.

#### 11. DIRECTION AND ADMINISTRATION Eighth Plan: Rs. 30 lakhs. Annual Plan 1990-91 : Rs. 5 lakhs

The main requirement in this area is the strengthening of Office of the Principal C.C.F. and other Senior Officers with modern office equipment in order to ensure greater efficiency of operations. Further at the field level also improvement in communications and office machinery is envisaged.

#### 12. PLANNING & STATISTICAL CELL Eighth Plan: Rs. 20 lakhs. Annual Plan 1990-91 : Rs. 3 lakhs

The existing set up needs modernisation in order to ensure better flow of information, collection analysis and interpretation etc. Further a more organized monitoring system needs to be set up and for these purposes a full fledged data processing system is proposed to be installed with the required hardware, software and personnel. It is also proposed to expand the library facilities to ensure regular flow of upto date information and dissemination of knowledge.

#### 13. EDUCATION AND TRAINING Eighth Plan: Rs. 30 lakhs. Annual Plan 1990-91 : Rs. 4 lakhs

To keep the officers and staff of the Forest Department well acquainted with the latest developments in forestry, wildlife etc. during the course of their service it is necessary to have periodical trainings, refresher courses. The newly appointed officers and field staff in the Forest Department will also have to be provided education in forestry to enable them to perform their field duties. The scheme is expected to take care of these requirements.

#### 14. FOREST PROTECTION Eighth Plan: Rs. 40 lakhs. Annual Plan 1990-91 : Rs. 7 lakhs

Forests are liable to be damaged due to fire, overgrazing, illicit felling/lopping of trees and many other ways. The protection of forests becomes absolutely necessary through development of infrastructure and organising regular patrolling in the forest areas. The State of Sikkim has extensive forest areas having habitation near its boundaries. This scheme will have two parts :-

a) A matching share for the Centrally Sponsored Scheme of "Development of Infrastructure for Protection of Forests from Biotic Interference". This scheme will be applicable to those areas which are prone and vulnerable to damage due to excessive biotic interference and require immediate attention. The activities under this scheme will be as specified in the Centrally Sponsored Scheme such as purchase of wireless sets, purchase of mobile van and jeeps for forest patrolling, raising of fodder plantation, creation of hedges along the boundary, fire lines clearance etc.

b) A separate provision for the activities other than those mentioned in the above scheme e.g. construction of forest checkposts on those roads through which the forest produce is likely to be illegally transported to the market for sale.

#### 15. SURVEY OF FOREST RESOURCES

**Eighth Plan: Rs. 30 lakhs**

**Annual Plan 1990-91 : Rs. 5 lakhs**

Forests in Sikkim contain a large number of herbs and shrubs of great medicinal value. During the 8th Plan a systematic survey is proposed to be undertaken in joint collaboration with Central Drug Research Institute to know the status of medicinal plants in different forest areas. The work of mapping of barren, degraded lands, wastelands, National Park, Sanctuaries, eroded and landslides prone areas will also be undertaken. Vegetable maps and stock maps will also be prepared and updated.

#### 16. DEMARCATION SURVEY AND SETTLEMENT

**Eighth Plan: Rs. 150 lakhs**

**Annual Plan 1990-91 : Rs. 30 lakhs**

With the growth in the population the tendency of cultivators having lands adjoining the forest areas to encroach on forest land is increasing. The Task Force on Environment in its report recommended that the work of demarcation of boundaries of forests lands should be completed by the end of 7th Plan. These works could not be taken up on a large scale due to budgetary constraints. In view of the magnitude of the problem the task of settlement, survey, demarcation and

erection of boundary pillars needs immediate attention. With the above situation in view it is proposed to undertake systematic survey of Reserve Forest boundaries and other forest areas including erection of boundary pillars.

#### 17. WORKING PLAN SCHEME

**Eighth Plan: Rs. 75 lakhs**

**Annual Plan 1990-91 : Rs. 15 lakhs**

The main activity here would be preparation of management plans of West and North Forest Division, logging plans for workable areas, catchment area treatment plans and environmental rehabilitation plans of major and minor river valley project areas. Besides, local volume table, yield tables and management maps are proposed to be prepared under this scheme.

18. Since most of the works relating to preparation of working plans particularly the preparation of management plans are targeted to be complete by the end of the year 1990, the working plan circle is proposed to be reconstituted and reorganised as "Planning and Development Circle" with the following components of works under it :

1. Forest Conservation Cell,
2. Planning and Statistical Division,
3. Remote Sensing and Working Plan Division,
4. Silviculture Division,
5. Survey and Demarcation Division and
6. Publicity and Extension Division.

#### 19. PRODUCTION FORESTRY

The provision of sufficient quantity of fodder, fuel and pastures is necessary in order to prevent the depletion of forests beyond sustainable limit. Although maximum emphasis will be on production of fuel wood and fodder, the demand for construction timber in the rural and urban areas to some extent will have to be met from the forest areas.

The production forestry programme will have two main components :

20. **PLANTATION SCHEMES****Eighth Plan: Rs. 765 lakhs****Annual Plan 1990-91: Rs. 97 lakhs**

These schemes will be applicable to ecologically fragile forest areas which have to be kept for protection of ecology and environment while an extent satisfying the demand for fuel, fodder and timber for the people residing in the village situated near the forest boundaries. Plantations carried out under these schemes will also protect the catchment areas of major river systems as well as power projects. Degraded forests in high altitudes areas will also be rehabilitated by plantation under these schemes. Financial outlay provided under these schemes will include creation and maintenance of nurseries for seedling production, maintenance of plantation for a period of four years after planting, protection of plantations from grazing etc. by providing fencing and cost of supervision. The broad division of the scheme will be as follows :

21. (a) **GREENING OF THE ECOLOGICALLY FRAGILE AREAS:****Eighth Plan: Rs. 375. 00****Annual Plan 1990-91: Rs. 48 lakhs**

Under this scheme those high altitude areas of North and East Districts will be taken up for plantations which are in a degraded condition and are the catchment areas of river systems. These areas need immediate attention because most of the perennial streams originating from these areas are slowly drying up. These areas are lashed by high intensity of rains during June, July and August causing land slides and closure of roads of strategic importance. This will be a new scheme and plantations of such trees will be raised in these areas that are fast growing and can provide fodder, fuelwood and small timber for the people residing in these areas.

22. (b) **REHABILITATION OF FIRE DAMAGED FOREST AREAS OF SOUTH AND WEST SIKKIM****Eighth Plan: Rs. 300 lakhs****Annual Plan 1990-91: Rs. 40 lakhs**

Large chunks of Reserve Forest areas which were damaged by fire during 1973 in West and South Sikkim could not be rehabilitated

due to paucity of funds. Absence of green cover in these areas has affected the hydrologic status of the catchment areas causing shortage of drinking water for rural and urban population during the dry season. This belt falls within the catchment areas of three major hydel projects viz: Rangit, Rathang and Kalez Chu. These areas need immediate attention for restoration of the green cover. It is, therefore, proposed to undertake 2500 ha. of plantations in these areas during the next five years.

23. (c) **REGENERATION OF CONIFER FORESTS****Eighth Plan: Rs. 90 lakhs****Annual Plan 1990-91: Rs. 9 lakhs**

Large areas in North Sikkim need immediate attention to help natural regeneration of conifer trees like Silver Fir, Hemlock etc. These areas contain dead trees on the forest floor and many of the standing trees are either hollow or overmature. To induce natural regeneration in these areas it is proposed to take up 2,000 ha. of area. This will include the cost of fencing in vulnerable areas, raking of soil and removal of dead trees, obnoxious weeds etc. from the forest floor.

24. 2. **SOCIAL AND FARM FORESTRY****Eighth Plan: Rs. 575 lakhs****Annual Plan 1990-91: Rs. 69 lakhs**

Provision of sufficient fodder, fuel and pasture, specially in areas adjoining Reserve Forests, is necessary in order to prevent depletion of forests beyond the sustainable limits. The schemes under Soil and Farm Forestry are meant for afforesting those areas which have been overutilised by the villagers in the past and are close to villages. These areas may be Khasmal and Gorucharan forest lands or private holding of the individuals. There will be two sub schemes under it.

25. (a) **SOCIAL FORESTRY AND RURAL FUELWOOD PROGRAMME****(50% C.S.S.)****Eighth Plan: Rs. 350 lakhs**

Since fuelwood continues to be the predominant source of energy in the rural areas, the programme of afforestation under this scheme will be intensified with special emphasis on augmenting fuelwood production to meet

the requirement of rural people. The scheme will cover the forest lands which are near the villages and those private lands which have become unfit for agriculture purposes. The outlay proposed under this scheme will be Rs. 350 lakhs and physical target proposed is 7000 ha. during the plan period.

26. (b) **AREA ORIENTED FUELWOOD/  
FODDER PROJECT**  
(50 percent C.S.S.)  
**Eighth Plan: Rs. 175 lakhs**

The scheme will cover the catchment areas of West and South Sikkim. Under this scheme plantation of fuelwood and fodder trees be raised in catchment areas of the rivers. An area of 2500 ha. is proposed to be tackled under this project.

27. (c) **ESTABLISHMENT OF SILVIPAS-  
TORAL FARM**  
(50 percent C.S.S.)  
**Eighth Plan: Rs. 50 lakhs**

Under this scheme silvipastoral farms will be created on 1,000 ha. of gorucharan lands. Suitable fodder trees and grasses will be planted under this scheme to establish fodder farms to reduce pressure on the Reserve Forests which are being overgrazed. This will encourage stall feeding and thus improve the regeneration capacity of the forest areas. This scheme will be applicable to those areas which are covered by dairy development programmes so that the benefit goes to those people who are rearing good quality cattle.

28. **EXTENSION FORESTRY**  
**Eighth Plan: Rs. 25 lakhs**  
**Annual Plan 1990-91 : Rs. 4 lakhs**

A well developed forestry extension network is necessary for the success of forest conservation and development programmes. It is envisaged that through extension forestry the farmers can get the opportunities to learn Agri-Silviculture and Silvipastoral techniques. Under this scheme it is proposed to create Van Chetna Kendras in Districts as well as a Forest Museum at Gangtok. Preparation of documentary films for mass communication, organisation of training camps for farmers, organisation of nature education camps for students,

printing of posters, charts etc. for mass education will be undertaken. Arranging of seminar/symposium will also be undertaken under this scheme. Tree planting awards for individuals and institutions will also be instituted. Propagation of improved chullahs for energy conservation through distribution of chullahs at subsidised rates will also be undertaken.

29. **AESTHETIC FORESTRY**  
**Eighth Plan: Rs. 60 lakhs**  
**Annual Plan 1990-91 : Rs. 12 lakhs**

Under aesthetic forestry the aim is to improve the environment of the areas along roads and towns through planting of avenue trees and also to preserve rare plants like orchids by creating orchid sanctuaries. During the 8th plan period it is proposed to raise 200 km of avenue plantation. Besides this step four Orchid Sanctuaries each of 40 ha. will be created and maintained in each district for conservation as well as for research purpose. The orchids in these sanctuaries will be kept in natural conditions so that they can be multiplied and are propagated to other adjoining areas through natural agencies.

30. **SILVICULTURE RESEARCH**  
**Eighth Plan: Rs. 50 lakhs**  
**Annual Plan 1990-91 : Rs. 8 lakhs**

During the 7th plan period, the activities of the Silviculture Division remained confined to maintenance of nurseries, trial plantation and establishment of some sample plots. This was primarily due to paucity of funds for this sector. During the 8th plan period, it is proposed to undertake silvicultural Research in a big way. Like other parts of the country firewood is the main problem in our state also. During the 8th plan period the main emphasis will be to find out fuel wood and fodder species suitable for degraded forest lands to get maximum production from these areas to meet the fuel and fodder requirement of ever increasing human and livestock population. Research will also be carried out to see the effect of different treatment on the natural regeneration of coniferous forests in North Sikkim. Seed Orchards will also be created to produce superior quality seeds to increase the productivity of the forest per unit area per unit time to meet the growing demands of forests produce.



31. **COMMUNICATION****Eighth Plan : Rs. 50 lakhs****Annual Plan 1990-91 : Rs. 5 lakhs**

In Sikkim most of the forest areas are away from the PWD Roads which are made primarily to meet the requirement of villages. For extraction of forest produce and for implementation of forestry programme feeder roads from the main roads are absolutely necessary.

32. **BUILDING****Eighth Plan : Rs. 250 lakhs****Annual Plan 1990-91 : Rs. 35 lakhs**

Forest Department is presently having 730 officers and staff in position. The Department has only 129 residential quarters at present. About 70 percent of the staff are located in the remote areas where suitable accommodation is generally not available even on rent. Therefore, the residential accommodation for forest staff is badly needed. It is proposed to provide residential accommodation to about 20 percent of staff during the plan period. Further there is shortage of office accommodation for Soil Conservation and Environment Wing of the Department. Building facilities are also required for accommodating the Remote Sensing Application Centre. Department also proposes to construct Forest Rest House in the state capital for the officers and staff coming to the state capital. A total provision of Rs.250 lakhs has been proposed for this programme.

33. **OTHER ACTIVITIES LOGGING****Eighth Plan : Rs.15 lakhs****Annual Plan 1990-91 : Rs. 3 lakhs**

Development of modern logging is necessary to reduce the wastage and for efficient utilisation of forest resources. Modern Logging tools and TMB trucks are proposed to be purchased at total cost of Rs.15 lakhs during the 8th Plan period for efficient utilisation of forest resources.

34. **DEVELOPMENT OF WOOD WORKING CENTRE****Eighth Plan : Rs. 25 lakhs****Annual Plan 1990-91 : Rs.5 lakhs**

Wood Working Centre is a part of Utilisation Circle and is engaged in producing quality furniture for Government Departments.

During the 8th Plan period it is proposed to purchase one A S C U plant for treatment of timber of secondary tree species with wood preservation to make efficient utilisation of forest resources. It is also proposed to install two solar seasoning kilns one each at Bordang and Jorethang to save on the wood economically.

35. **MINOR FOREST PRODUCE****Eighth Plan : Rs. 50 lakhs****Annual Plan 1990-91 : Rs. 10 lakhs**

To implement the C.S.S. for development of minor forest produce it is proposed to upgrade the cardamom sub division to a full fledged division so that both the scheme of cardamom and M.F.P. can be implemented. An outlay of Rs.50 lakhs is proposed for the purpose. This will also include the establishment of M.F.P. division. A vehicle is also proposed to be purchased for the implementation of new scheme of M.F.P.

36. **PUBLIC RELATION UNIT****Eighth Plan : Rs.10 lakhs****Annual Plan 1990-91 : Rs. 1 lakh**

Public relation unit will be activated to work in coordination with the extension forestry division. An outlay of Rs. 10 lakhs is proposed for meeting the expenses of the P. R. Unit.

37. **AMENITIES TO TAUNGYADARS****Eighth Plan : Rs. 5 lakhs****Annual Plan 1990-91 : Rs. 1 lakh**

This scheme will continue in 8th Plan and plantation will be raised through taungyadars, and they will be paid subsidy for the purpose. An outlay of Rs.5 lakhs is proposed.

38. **BIOSPHERE RESERVE****Eighth Plan : Rs. 30 lakhs****Annual Plan 1990-91 : Rs. 5 lakhs**

A Biosphere Reserve is proposed to be set up in North/West Sikkim covering an area of about 2,000 sq. Km. with following broad objectives.

Conservation of representative samples of ecosystem ;

Provision of long term conservation of genetic diversity in - situ ;

Promotion of basic and applied research work and its monitoring ;  
Dissemination of experience of education and training. The main item of work will be as follows :

- a. Survey, Investigation, demarcation and consolidation of boundaries.
- b. Eco-restoration, protection and conservation,
- c. Education and awareness programme.  
Accordingly an outlay of Rs. 30 lakhs only is proposed.

#### 39. SERICULTURE

**Eighth Plan: Rs. 25.00 lakhs**

**Annual Plan 1990-91 : Rs.4 lakhs**

Sericulture has been one of the Agro-based labour intensive industries in Sikkim ideally suited to the prevailing climate as well as the socio-economic status of the State. Unfortunately, even though the Sericulture programme started in the 6th Plan it has not developed very well due to the lack of proper marketing facilities. In the 7th Plan period the Sericulture programme with an outlay of Rs. 25.00 lakhs, consisted of maintenance of existing nurseries and demonstration plots and extension of the Sericultural programmes to potential areas in consultation with the Central Silk Board. In the 8th Plan period it is proposed to continue the Sericulture programme by maintaining the existing nurseries and extending the programme to commercially viable areas. A provision of Rs. 25.00 lakhs has been kept for this purpose.

#### 40. WILDLIFE PRESERVATION

**Eighth Plan: Rs. 570 lakhs**

**Annual Plan 1990-91 : Rs.72 lakhs**

Sikkim is very rich in flora and fauna due to wide variation in altitudes and good rainfall. The State contains 144 species of mammals, 324 species of birds 422 species of butterflies. The State contains some of the endangered and rare species like Snow Leopard, Blue sheep, Red Panda, Musk deer etc. Up to 7th plan period 1,000 sq. km. has been declared as protected areas for conserving flora and fauna. The main emphasis during this period was confined to development of infrastructure in Khangchendzonga National

Park and Fambonglho Wildlife Sanctuary besides undertaking the work of trap demolition and physical demarcation of boundary.

41. During the 8th plan period areas which are proposed to be declared as protected areas are : (a) buffer zone of Khangchendzonga National Park (700 Sq. Km.), (c) Pangolakha Range (100 sq. km.), (d) Kitam Sal-Chirpine Association belt (20 sq. km.), (d) Varsey, Kyongnesla, Yumthang Valley, Dombang Valley (150 sq. km.).

42. Brief details of the schemes which are proposed for the 8th plan are as follows

#### 43. MANAGEMENT OF PROTECTED AREAS AND HABITAT RESTORATION

**Eighth Plan: Rs. 250 lakhs**

**Annual Plan 1990-91 : Rs. 35 lakhs**

The priority will be given to the management of protected areas for habitat restoration. The activities proposed to be undertaken are as under :

- a) Detailed habitat mapping and status survey of flora and fauna.
- b) Preparation of detailed management plans,
- c) Physical demarcation of boundaries by erection of boundary pillars,
- d) Management of habitat through creation of water holes, salt-licks, plantation of fruit and fodder plants,
- e) Development of infrastructure facilities through construction of buildings, bridle paths, log-houses, quarters for the staff,
- f) Transport facilities to be provided to the officers through purchase of two jeeps and four motor cycles,
- g) Creation of posts for implementation of scheme :
  - i. Research Officers 2
  - ii. Wild Life Warden 1
  - iii. Asstt. Wildlife Warden 2
  - iv. Driver 2
- h) For effective communication between the field parties and Range Head Quarters five sets of Wireless Radio are to be purchased.
- i) Research is proposed to be carried out in the protected area to understand the ecology of the flora and fauna of the high altitude areas.
- j) Purchase of equipments and clothings for camping and working in high altitude areas.

The scheme will be applicable to Khangchendzonga National Park and Pangolakha National Park and Buffer Zone of K.N.P. and other sanctuaries. To undertake the above mentioned activities financial outlay of Rs.250 lakhs is proposed.

44. **WILDLIFE PROTECTION MULTIPLE USE AREAS:**

**Eighth Plan: Rs. 50 lakhs**

**Annual Plan 1990-91 : Rs. 7 lakhs**

Besides the protected areas the protection of wild life outside the Sanctuaries and National Parks is also necessary as a certain percentage of animals are likely to migrate outside the protected areas for certain period.

The following activities are proposed for multiple use areas.

- a. Organising patrols to combat poaching,
- b. Protection of corridors linking the protected areas.
- c. Habitat improvement in the important areas,
- d. Provision of transport facilities for the officers and patrolling staff, two jeeps and eight motorbikes are proposed to be purchased.
- e. Training to the field staff of the Wild life is proposed for combating poacher.
- f. For effective communication between the Range Head Quarters and patrolling parties wireless sets are proposed to be purchased.
- g. Posts of two Asstt. Wild Life Officers and their supporting staff is proposed to be created.

To implement the above mentioned scheme an outlay of Rs.50 lakhs is proposed.

45. **MUSK DEER FARMING:**

**Eighth Plan: Rs. 50 lakhs**

**Annual Plan 1990-91 : Rs. 7 lakhs**

Musk Deer farming is proposed to be taken up for captive breeding at suitably located areas within its habitat for as close to its habitat as possible. Sites chosen will be such that this species can be released near the sites where it is proposed for captive breeding. Two musk deer farms are proposed to be established during the Plan period, one in the Moinam area of South Sikkim and other at a suitably located place in the North Sikkim. The scheme

will be implemented by the staff proposed for the conservation of threatened species. However, posts of two Veterinary Officers and few subordinate staff may be created for the farm. The staff engaged in the task will be trained in the Wild Life Institute of India. The deer are proposed to be bred for extraction of Musk through scientific techniques and also for releasing them in wild to increase their numbers.

46. **WILD LIFE EDUCATION AND INTERPRETATION:**

**Eighth Plan: Rs. 20 lakhs**

**Annual Plan 1990-91 : Rs. 3 lakhs**

To promote awareness among the public in respect of importance of wild life it is proposed to undertake the following activities:

- a. Purchase of audio visual materials, documentary films on wild life and nature,
- b. Purchase of slide-projector and slide films
- c. Printing of pamphlets, posters, brochures etc. for publicity.
- d. Organisation of field trips of students to the wild life sanctuaries for creating awareness to protect forests and wild life.
- e. Creation of wild life museums for educating school children in the capital of the state.
- f. For field trips and carrying films projector to the interior areas to show documentary films and for audio visual display, a vehicle is proposed to be purchased for use by the officers and staff.

47. To undertake the above activities an outlay of Rs.20 lakhs only is proposed.

**HIMALAYAN ZOOLOGICAL PARK**

**Eighth Plan: Rs. 200 lakhs**

**Annual Plan 1990-91 : Rs. 20 lakhs**

48. At the moment in Sikkim there is no organised zoological park. Sikkim has some very exotic and rare animals and birds such as Snow Leopards, Himalayan Panda, Musk Deer, Blue Sheep etc. It is not possible for the ordinary people to see these animals as they are to be found only in the remote parts of the State and in the Kanchanjunga National Park. Accessibility of these areas is not only difficult but since the areas fall within the protected/restricted zones, very often people cannot go at all. Further for the student community organisation of a zoological park will

be an extremely important programme in order to build up awareness of the need for wild life conservation. Useful lessons, about national history can be learned by well organised zoological park. It is also felt that this can prove to be a very good tourist attraction. The plans therefore have been formulated to establish a Himalayan Zoological Park with Wild Life Information Centre in Gangtok and for this purpose land has also been earmarked.

It is proposed to provide Rs. 200 lakhs for this purpose to be spent during the Eighth Plan with a provision of Rs. 20 lakhs in the 1990-91 Annual Plan.

Out of an outlay of Rs.2880.00 lakhs proposed for the Eighth Five Year Plan for the Forest and Wild Life Sector, Rs.445.00 Lakhs has been earmarked for the Annual Plan 1990-91. Schemewise allocation is detailed in statement GN - 2.

## DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN-1990-91

## HEADS OF DEVELOPMENT: OUTLAY AND EXPENDITURE

Statement GN-2

## DEPARTMENT: FORESTRY AND WILDLIFE

(Rs. in lakhs)

Code No.	Name of the Scheme/Project	Seventh Plan Outlay (1985-90)	Expenditure 1985-86 to 88-90	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which capital content	Annual Plan 1990-91 Proposed Outlay	Of which capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
10240600	FORESTRY AND WILDLIFE							
01	FORESTRY							
001	Direction and Admn.	13.00	18.00	5.00	30.00	—	5.00	—
005	Survey and Utilisation of Forest Resources	43.00	43.22	14.00	295.00	—	58.00	—
i)	Survey of Forest Resources	5.00	—	—	30.00	—	5.00	—
ii)	Survey and Demarcation	13.00	—	—	150.00	—	30.00	—
iii)	Working Plan	25.00	—	—	75.00	—	15.00	—
iv)	Development of Logging	—	—	—	15.00	—	3.00	—
v)	Development of Wood working centre	—	—	—	25.00	—	5.00	—
013	Statistical and Planning Cell	—	—	—	20.00	—	3.00	—
070	Communication and Building	40.00	28.41	10.00	300.00	300.00	40.00	40.00
i)	Communication	—	—	—	50.00	50.00	5.00	5.00
ii)	Buildings	..	..	..	250.00	250.00	35.00	35.00
101	Forest Conservation & Development	8.00	3.54	2.00	120.00	..	20.00	..
i)	Development of infrastructure for forest Plantation	..	..	..	40.00	..	7.00	..
ii)	Silviculture	..	..	..	50.00	..	8.00	..
iii)	Biosphere Reserve	..	..	..	30.00	..	5.00	..
102	Social & Farm Forestry	567.00	403.35	143.00	1425.00	..	182.00	..
i)	Plantation Schemes	162.00	..	..	765.00	..	97.00	..
a)	Greening of ecologically fragile areas	..	..	..	375.00	..	48.00	..
b)	Rehabilitation of fire damaged forest area	—	—	—	300.00	..	40.00	..

## DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN - 1990 - 91

## HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE

Statement GN - 2

## DEPARTMENT : FORESTRY AND WILDLIFE

(Rs. in lakhs)

Code No	Name of the Scheme/Project	Seventh Plan Outlay (1985-90)	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	of which Capital Content	Annual Plan 1990-91 Proposed Outlay	of which Capital Content
1	2	3	4	5	6	7	8	9
c)	Regeneration of Conifer Forests	..	..	..	90.00	..	9.00	..
ii)	Social Farm Forestry	330.00	..	..	575.00	..	69.00	.
iii)	Aesthetic Forestry	..	..	..	60.00	..	12.00	..
iv)	Sericulture	25.00	..	..	25.00	..	4.00	..
v)	Rehabilitation of Degraded Forest	50.00	..	..	..	..	..	..
105	Forest Produce	61.00	39.28	10.00	50.00	..	10.00	..
i)	Development of minor Forest Produce	..	..	..	25.00	..	5.00	..
ii)	Cardamon	..	..	..	25.00	..	5.00	..
109	Extension & Training	116.50	81.54	26.00	70.00	..	10.00	..
i)	Education & Training	8.00	..	..	30.00	..	4.00	..
ii)	Extension Forestry	7.00	..	..	25.00	..	4.00	..
iii)	Public Relations Unit	1.20	..	..	10.00	..	1.00	..
iv)	Amenities to Taungyadars	5.00	..	..	5.00	..	1.00	..
v)	Cultural Operation	20.30	..	..	..	..	..	..
vi)	Nurseries	75.00	—	—	—	—	—	—
	Total	848.50	—	—	2310.00	—	328.00	—
101246602	Environmental Forestry & Wild Life	101.50	85.66	25.00	570.00	—	72.00	—
i)	Management of Protected Areas & Habital restoration	—	—	—	250.00	—	35.00	—
ii)	Wild Life Protection in Multiple Use Areas	—	—	—	50.00	—	7.00	—
iii)	Musk Deer Farming	—	—	—	50.00	—	7.00	—
iv)	Wild Life Education	—	—	—	20.00	—	3.00	—

## DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN 1990-91

HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE

Statement GN-2

DEPARTMENT : FORESTRY &amp; WILDLIFE

(Rs. in lakhs)

Code No.	Name of the Scheme/ Project	Seventh Plan Outlay (1985-90)	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which capital content	Annual Plan 1990-91 Proposed outlay	Of which capital content
1	2	3	4	5	6	7	8	9
	v) Establishment of Himalayan Zoological Park with wild Life Information Centres	—	—	—	200.00	—	20.00	—
		—	—	—	—	—	—	—
	Total	950.00	703.00	235.00	2880.00	300.00	400.00	40.00

## Cooperatives

1. Co-operatives have been accepted as a socio economic instrument, that could best fulfill both the social and economic aspirations of its members. It is in this light that the International Co-operative Alliance has prescribed six Principles of Co-operation.

1) Voluntary membership; 2) democratic decision making system on the basis of one man one vote. 3) limited interest on share capital; 4) equitable distribution of surplus; 5) Co-operative education and 6) mutual co-operation.

2. The Co-operative movement in Sikkim was organised with the establishment of a Co-operative Department in 1975 on the recommendation of a study team constituted by the Government of India for Institutional arrangements for Agricultural credit in Sikkim. The Co-operative Societies Act of 1955 was amended to suit the local conditions and rules were framed. To begin with 35 Multipurpose Co-operative societies were formed. These societies were created with multifarious functions relating to farm and non farm credits, to form part of the public distribution network for essential commodities, procurement and marketing of farm produce and banking activities.

3. The scope of activities of the cooperative movement was enlarged in the 6th plan period with the establishment of the consumer and Milk Co-operatives alongwith Apex Co-operative institutions like the Sikkim Milk Producer's Union, which is today handling the bulk of the milk procurement and distribution in the State and the Sikkim Supply and Marketing Federation which is responsible for the marketing of cash crops like Cardamom, Apple, Vegetables etc. for the farmers.

4. In the 7th Plan period, the activities of the Co-operative sector has shown significant increase with the opening of new societies, increase in membership, handling and distribution of essential commodities and consumer items, distribution of agricultural inputs, procurement and marketing of farm produce etc. However in spite of continuous encouragement

from the State Govt. in the form of share capital, training of manpower and extensive publicity, the overall performance has not been satisfactory. Further the rural credit activity has suffered to a great extent in the absence of an Apex Co-operative bank. There are also the problems of overdues and bad debts.

5. In the 8th Plan, the Department proposes to consolidate the existing co-operative structure, focusing attention on reviving all sick units and expanding the network further to organise co-operatives for agrobased industries, village industries and artisans, processing units, agroservice units etc. In view of the fact that the co-operative movement has suffered a setback due to the absence of an Apex Co-operative Bank the creation of an Apex Cooperative Bank is being accorded high priority in the 8th Plan.

6. It is also proposed to expand the activities of the Sikkim Milk Producer's Union to strive for a higher capacity utilisation by enhancing milk collection through the existing primary societies by introducing better crossbreeds, proper health services and feeding programmes. It is also proposed to open more primary societies in remote and difficult areas to extend benefits to the milk producers residing in those areas.

7. At the moment the two Apex Marketing organisations the State Supply and Marketing Federation and the Denzong Agricultural Co-operative Limited are assisting the Multipurpose Co-operative societies in the marketing of the surplus cash crops like large cardamom, ginger, potato, off season vegetables, fruits and minor forest produce. In the near future it is also envisaged that floriculture, village based processing units and agrobased industries would come under the co-operative sector. This would require a marketing infrastructure that would be able to provide a reliable and efficient service to the growers and ensure remunerative prices.



Programme for the Eighth Plan are detailed below:

#### **8. DIRECTION AND ADMINISTRATION**

**Eighth Plan : Rs. 40 lakhs**

**Annual Plan 1990-91 : Rs. 6.00 lakhs**

The main aim is to streamline and strengthen the administrative structure to cope with the ever increasing activities of the Department. An outlay of Rs.20 lakhs has been proposed under this head for the plan period. To provide the Co-operative Societies with experienced and trained management personnel it is proposed to appoint 40 secretaries to man the Co-operative Societies. An additional provision of Rs.20 lakhs has been proposed to take up this programme.

#### **9. TRAINING AND EDUCATION**

**Eighth Plan : Rs. 10 lakhs**

**Annual Plan 1990-91 : Rs. 1.50 lakhs**

With the aim of gearing up the co-operative movement in the State, the training of Societies office bearers, members and field level functionaries of the Department is proposed to be taken up on a massive scale, particularly on co-operative management. An outlay of Rs.10 lakhs has been proposed for this programme.

#### **10. AUDIT OF CO-OPERATIVES**

**Eighth Plan : Rs. 14 lakhs**

**Annual Plan 1990-91 : Rs. 2.50 lakhs**

In order to ensure proper monitoring of the functioning of the Co-operative societies, it was felt that timely auditing of the accounts should be taken up. To strengthen the audit infrastructure a sum of Rs.14 lakhs has been proposed.

#### **11. INFORMATION AND PUBLICITY**

**Eighth Plan : Rs. 5 lakhs**

**Annual Plan 1990-91 : Rs. 1.00 lakh**

Seminars, workshops and field days are proposed to be organised for Departmental staff and societies office bearers to bring about an awareness of the co-operative movement. Pamphlets and booklets on various topics concerning co-operative developmental programmes would be printed and distributed. An outlay of Rs.5 lakhs has been proposed under this head for the plan period.

#### **12. ASSISTANCE TO MULTIPURPOSE RURAL CO-OPERATIVES**

**Eighth Plan : 30 lakhs**

**Annual Plan 1990-91 : Rs. 5.00 lakhs**

As assistance to the Multipurpose Co-operative societies it is proposed to maintain Rs.15 lakhs as share capital contribution, Rs. 10 lakhs as Managerial and rental subsidies and Rs. 5 lakhs as interest subsidies. A total outlay of Rs. 30 lakhs has been proposed under this head.

#### **13. ASSISTANCE TO CREDIT SOCIETIES**

**Eighth Plan : Rs. 66 lakhs**

**Annual Plan 1990-91 : Rs. 10.00 lakhs**

As the creation of an Apex Co-operative Bank has been accorded high priority in the 8th Plan, a sum of Rs.51 lakhs is proposed as share capital contribution by the Government. Further to enable co-operative societies to contribute share capital to the proposed bank Rs. 15 lakhs is proposed to be given assistance to the societies. The total outlay proposed under this head is to the tune of Rs.66 lakhs for taking up the various programmes.

#### **14. ASSISTANCE TO OTHER COOPERATIVE**

**Eighth Plan : Rs. 65 lakhs**

**Annual Plan 1990-91 : Rs. 12.00 lakhs**

As assistance to the other co-operatives like consumer co-operatives, Processing Co-operatives, Storage Co-operatives, and other co-operatives proposed to be set up covering village artisans, livestock, transport and floriculture an outlay of Rs.65 lakhs has been proposed to cover share capital, managerial subsidy, rental furnitures etc.

#### **15. ASSISTANCE TO PUBLIC SECTOR AND OTHER ORGANISATION**

**Eighth Plan : Rs. 35 lakhs**

**Annual Plan 1990-91 : Rs. 6.00 lakhs**

As an assistance to Apex marketing organisations in the form of managerial subsidies, creation of price fluctuation fund for farm produce and for supporting the prices of cash crops such as cardamom and ginger a sum of Rs.35 lakhs has been proposed to take up these programme.

## 16. DAIRY CO-OPERATIVE

**Eighth Plan : Rs. 100 lakhs**

**Annual Plan 1990-91 : Rs. 15.00 lakhs**

In view of the objective of the Sikkim Milk Producer's Union to enhance milk collection in the State Rs.100 lakhs has been proposed which would be utilised to provide for :-

- a) Share capital to Dairy Co-operatives;
- b) Transport, Managerial and Processing subsidies to milk union;

- c) Subsidies for construction for milk collecting sheds and feed storage;
- d) Subsidies on distribution of milch cattle;
- e) Establishment of milk chilling plant, managerial and rental assistance to milk co-operatives.

17. Out of Rs. 365.00 lakhs proposed for the Eighth Plan period Rs.58.00 has been provided for Annual Plan 1990-91. Schemewise allocation is given in statement GN-2.

## DRAFT EIGHTH FIVE YEAR PLAN ( 1990-95 ) AND ANNUAL PLAN - 1990 - 91

## HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE

Statement GN - 2

DEPARTMENT :		CO-OPERATION					( Rs. in Lakhs )	
Code No.	Name of the Scheme/ Project	Seventh Plan Outlay (1985-90)	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which capital content	Annual Plan 1990-91 Proposed Outlay	Of which capital content
1	2	3	4	5	6	7	8	9
101242500 COOPERATION								
001	Direction & Admn.	50.00	36.89	11.40	40.00	—	6.00	—
003	Training	2.00	0.48	0.38	10.00	—	1.50	—
104	Audit of Cooperatives	—	—	—	14.00	—	2.50	—
105	Information & Publicity	3.00	1.36	0.57	5.00	—	1.00	—
106	Assistance to Multipurpose Rural Co-operatives	10.00	4.35	3.89	30.00	12.00	5.00	3.00
107	Assistance to credit co-operatives	10.00	6.70	3.00	66.00	51.00	10.00	8.00
108	Assistance to other co-operatives							
1)	Co-operative processing	3.00	2.51	1.18	5.00	—	1.00	—
ii)	Co-operative Storage	20.00	13.33	3.80	20.00	15.00	4.00	4.00
iii)	Consumer Co-operative	35.00	31.98	7.60	30.00	12.00	5.00	2.00
iv)	Other Cooperatives	14.00	1.94	0.48	10.00	4.50	2.00	1.00
190	Assistance to Public Sector & other Undertakings	28.00	23.46	6.17	35.00	—	6.00	—
101240400 DAIRY DEVELOPMENT								
102	Dairy Co-operatives	25.00	37.51	9.03	100.00	17.00	15.00	3.00
Total		200.00	160.51	47.50	365.00	111.50	58.00	21.00

## CHAPTER VIII

**Special Programmes For Rural Development**

1. The Rural Development Department is concerned with all those programmes which are of direct relevance to the population as regards bringing about all round improvements in standards of living and quality of life in the rural areas. The major programmes under which projects/schemes are undertaken are Integrated Rural Development, National Rural Employment Programme, Rural Landless Employment Guarantee Programme, construction of rural roads, rural bridges, rural water supply and sanitation and also for development of new renewable sources of energy. Of this, the NREP and the RLEGP schemes have been discontinued w.e.f. 1.4.1989 and the Jawaharlal Rozgar Yojana has been introduced. This new Programme considerably expands the content as regards employment generation and is to be implemented directly by the Panchayat. Each one of the above mentioned programme is calculated to directly attack rural poverty and are beneficiary oriented in the real sense of the term. The major concentration is on those families who are identified to be below the poverty line and will require direct assistance in order to enable them to come above the line. The emphasis therefore is on providing them such assistance which will generate substantial additional income on an enduring basis. Further the creation of community assets which benefit the rural population in terms of schools, roads, bridges, Panchayat ghars etc. are also emphasised upon. A large number of assets have thus been created both during the Sixth and Seventh Plan periods.

2. A brief review of the activities under the various programmes during the Seventh Five Year Plan would indicate that around 21000 number of families were assisted directly under the IRDP Programme. The assets created as a result of the NREP programme include construction of 27 number of four roomed schools, 180 numbers of two roomed schools, 1130 kms. of rural road, 100 numbers of playgrounds, 18 numbers of community centres and social forestry to the extent of 970 hectares. Under the RLEGP schemes land development to the extent of 65 hectares, 22 numbers of minor irrigation works, 147 numbers of two roomed schools, 4 numbers of four roomed schools, 88 kms

of village roads, 17 Kms of jeepable roads, 350 hectares of social forestry, 562 numbers of Indira Awas and 163 numbers of rural sanitary latrines were taken up. Programmes such as TRYSEM, DWCRA were also implemented.

3. Major strides were taken in the field of non-conventional energy with considerable emphasis on the biogas and improved chula programmes. During the Seventh Five Year Plan period 16000 chulas were constructed. Further around 300 biogas plants would have been established by the end of the Seventh Plan, the Integrated Rural Energy Programme with emphasis on energy Plantation, introduction of solar energy and biogas and improved chula programmes was implemented in the Soreng sub division, West Sikkim.

4. Even though the State as a whole has made very significant progress in all fields of economic development and the per capita income has gone up very substantially, programmes which deal with rural areas with particular emphasis on alleviation of poverty continues to be relevant for the State and are essential to see that those who are identified to be under the poverty line are enabled to improve the living standards. Further the gap between the quality of life in the rural areas and that in the urban area needs also to be bridged by undertaking specific programmes in those areas. While the spread of education and health services no doubt takes care of certain aspects of rural life, programmes such as water supply, sanitation, road, building etc. need to be paid specific attention to.

5. Democratic decentralisation of planning and development through the establishment of Panchayat Raj institutions has received very considerable attention in the last year of the Seventh Plan. With the legislation in this regard being taken care of, steps have to be taken to strengthen these institutions where they exist, establish institutions where they do not exist, and also provide the necessary administrative and financial resources to these institutions so that they acquire the capacity for planning and implementation of development programmes which are of relevance to the economic situation in the rural areas. All these areas of concern are sought to be taken care of in the proposals formulated for the Eighth Plan, the details of which are indicated below:-

## I IRDP PROGRAMME.

**Eighth Plan: Rs. 150 lakhs**

**Annual Plan 1990-91: Rs. 30 lakhs**

For the purpose of implementing the IRDP Programmes the whole State of Sikkim has been taken as one district and Programme has been implemented in the State since 1981-82 on this basis. The task of identifying the beneficiaries, preparation of projects, liaison with the banking system, implementation of the schemes and monitoring are all taken care of by the Sikkim Rural Development Agency. During the Seventh Plan it is estimated that 21,500 families will be covered under this programme. As per a house to house survey undertaken by the RDD it is estimated that on the basis of assistance rendered under this programme a little over 1,000 families have crossed the poverty line. However, the survey also revealed that another 10,300 families need assistance as their incomes were found to be well below the figure of 6,400 per annum. During the Eighth Plan therefore it is proposed to cover 12,500 families with the aim of making atleast 2,000 families cross the poverty line. The programmes of TRYSEM and DWCRA will also be continued, with emphasis on providing training in non-agriculture vocations and improving the self employment capabilities of the trainees. In regard to DWCRA once again expansion in a number of training programme is envisaged to include non-agricultural vocations. Provisions proposed are as follows:-

	(Rs. in lakhs)
1. IRDP	100.00
2. TRYSEM	20.00
3. DWCRA	20.00
4. Strengthening of Administration	10.00
	<hr/>
Total :	150.00
	<hr/>

Since this is a Centrally Sponsored Scheme an equivalent amount is expected to be provided by the Government of India.

## II JAWAHARLAL ROJGAR YOJANA

**Eighth Plan: Rs. 250 lakhs**

**Annual Plan 1990-91 : Rs. 50 lakhs**

This scheme has been introduced in 1989-90 with the objective of creating direct employment opportunities in the rural areas and construction of durable assets. As per the guidelines the allocation is to make district wise and 5 percent of the expenditure is for administrative purpose, 10 percent on maintenance, 15 percent for the Indira Awas Yojana, 25 percent for the social forestry and the remaining 25 percent is for expenditure on durable assets to be decided upon by the Gram Panchayats. Eighty percent of the expenditure is to be met by the Central Government and 20 percent by the State Government. During 1989-90 Sikkim has received Rs. 15.02 lakhs for this programme. Given the great importance of the scheme and the benefits that will accrue directly to the people this scheme will have to receive much greater attention, during the Eighth Plan and it is therefore proposed that Rs. 50 lakhs per year be provided for the purpose during the Eighth Plan. The total outlay for the Eighth Plan as such would be Rs. 250.00 lakhs out of which 80 per cent is expected to be provided for by the Central Government. This programme is expected to generate 30 lakh mandays of employment during the VIIIth Plan and 6 lakh mandays during the annual Plan 1990-91.

## III. INTEGRATED RURAL ENERGY PROGRAMME

**Eighth Plan : Rs. 100 lakhs**

**Annual Plan 1990-91 : Rs. 20 lakhs**

A Delhi based consultancy firm has prepared project reports for implementing the programme and during the 7th Plan the programme has been implemented in one block of Soreng Sub Division of West Sikkim. The programme covered all types of new and renewable energy sources. During the 8th Plan it is proposed to cover 4 new Sub Divisions at a cost of Rs. 20 lakhs each and a provision of Rs. 100 lakhs.

## DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN - 1990-91

HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE

Statement GN-2

DEPARTMENT : RURAL DEVELOPMENT

Rs. in lakhs

Code No.	Name of the Scheme/Project	Seventh Plan Outlay 1985-90	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which capital content	Annual plan 1990-91 Proposed Outlay	Of which capital content
1	2	3	4	5	6	7	8	9
102000000	II Rural Development Special Programme for Rural Development							
01	Integrated Rural Development Programme (IRDP)							
100 i)	IRDP (Main Programme)	100.00	81.40	20.00	100.00	-	20.00	-
001	Direction & Admn.	-	4.00	2.00	10.00	-	2.00	-
003	Training (TRYSEM)	-	1.00	0.50	20.00	-	4.00	-
101	Subsidy to District Rural Development Agencies	-	74.40	19.50	-	-	-	-
200 ii)	Allied programme of IRDP	-	-	-	-	..	..	..
202	DWCRA	-	2.00	1.00	20.00	..	4.00	..
04	Integrated Rural Energy Planning Programme	-	28.53	16.00	100.00	..	20.00	..
105	Project Implementation	-	50.00	-	..	..	..	..
102250500	RURAL EMPLOYMENT							
01	National Programme NREP	90.00	98.75	35.00	PROGRAMME	DISCONTINUED		
	Jawhar Rojgar Yojana ( 20: 80 CSS )	-	-	50.00	250.00	-	50.00	-
	Total	240.00	290.08	144.00	500.00	-	100.00	-

## Community Development And Panchayat

(1) During the 7th plan period, the State reorganised the Gram Panchayat whereby the total number of Gram Panchayat units (GPU) was reduced from 153 to 138 nos. During the same period the panchayat elections were also held as per the Sikkim Panchayat Act of 1982. It is proposed to further reduce the number of Gram Panchayat units so as to give a wider area of operation for each Gram Panchayat unit. At present, each Gram Panchayat is composed of a number of wards, with each ward being coterminous with revenue block. The State has 440 revenue blocks out of which 26 are in the forest area. The remaining 414 blocks which are inhabited are covered by an equal number of panchayat wards under 138 Gram Panchayat units. Out of the 138 GPUs, two units namely Lachen and Lachung in North Sikkim have a traditional village level body known as the "Dzumsa". This Dzumsa system has been recognized officially as the Panchayat units for the above two villages. The Dzumsas elect two representatives annually who are designated as "pipons".

(2) Keeping in line with the national consensus and recognizing the importance of democratic institution at the grass root level and the objective of revitalisation of the Panchayat Raj Institution at the district and lower levels of administration, the state government have formulated proposals for strengthening of the Panchayat Raj Institutions (PRI) in terms of both administrative as well as financial support. The State proposes to continue with the two tier system with a Gram Panchayat at the village level and the Zilla Panchayat at the District level. The enactment of the Sikkim Panchayat Act, 1982 provides for a five year term with elections being held on adult franchise basis. The office bearers as Shabhapati, Up-Shabhapati and Sachiva at the Gram Panchayat level and Adhakshya and Up-Adhakshya at the District level are elected indirectly i.e. elected from amongst the elected members of the Panchayat units. The representation of scheduled castes, scheduled tribes and women in the Gram Panchayat is also ensured under the Act with proviso for the Govt. to nominate

such representatives in the event of their failure to get elected. All the Shabhapatris of the Gram Panchayats are the members of the Zilla Panchayat having voting rights. The respective area MLAs are also members of the Zilla Panchayat but without voting rights. The representation for SC, ST and women members in the Zilla Panchayat is under examination. For the functioning of the Gram Panchayats, 52 numbers of Panchayat Ghars have already been constructed throughout the State.

Furthermore, for the functioning of the Zilla Panchayat 2 Zilla Panchayat Bhawans namely at Gyalshing (West Sikkim) and Namchi (South Sikkim) will be completed during the 7th Plan period. The construction of 2 Zilla Panchayat Bhawans for Mangan (North Sikkim) and Gangtok (East Sikkim) will be continued as spill over works and completed during the VIII th plan period. During the VIII th plan period, each GPU is being provided as annual fund of Rs.10,000.00 from the State. Besides this, 10 percent of the land revenue and entire house tax collection within the jurisdiction of the unit is also placed at the disposal of the Panchayats with which the panchayats have to implement relevant development schemes. In addition, the panchayats are empowered to generate their own resources by imposing levy and taxes on schemes executed by the Govt. which are handed over to them for maintenance.

(3) In view of the considerable emphasis being given to the panchayat Raj institutions at the national level, the State Govt. is already formulating detail modalities for decentralising the process of development administration to the grass root level and for which purpose it is necessary to provide administrative and financial support to the Panchayat Institutions at all levels. The details outlining the nature and quantum of support for the Panchayats as envisaged during the VIII th Plan are given below :-

**(a) GRAM PANCHAYAT:****Eighth Plan: Rs. 615 lakhs****Annual Plan 1990-91 : Rs. 123 lakhs**

For the Gram Panchayat, it has been proposed that an annual fund of Rs. 1.00 lakh per GPU will be provided as the Panchayat fund. This will include the requirement for secretarial assistance to the Gram Panchayats and enable them to take on the development functions within their area of jurisdiction. The total financial allocation for the VIIIth Plan period for the GPUs will therefore, be Rs.615.00 lakhs with an outlay of Rs.123.00 lakhs for the year 1990-91.

**(b) ZILLA PANCHAYAT:****Eighth Plan: Rs. 100 lakhs****Annual Plan 1990-91 : Rs. 20 lakhs**

The Govt. proposes to establish the Zilla Panchayat institutions by the year 1990-91. This would mean establishment of the Zilla Panchayats each in all the four districts. It is proposed to provide an annual fund of Rs.5.90 lakhs to each Zilla Panchayat for the VIIIth Plan. This will be in addition to measures for resource generation that may be initiated by the Zilla Panchayats. The funds will be utilised by these bodies for the purpose of organising necessary administrative support as also take up relevant programmes of development in their respective jurisdictions. The question of delegation of administrative and financial powers, earmarking sectors of development which will be the responsibility of the Zilla Panchayats and placement of the required technical personnel at their disposal are all under Government's consideration. Accordingly a total outlay of Rs.100 lakhs has been proposed for the VIII th Plan with Rs.20 lakhs for the Annual Plan 1990-91.

**(c) CONSTRUCTION OF BUILDINGS INCLUDING TRAINING AND EDUCATION:****Eighth Plan: Rs. 60 lakhs****Annual Plan 1990-91 : Rs. 26 lakhs**

For the completion of the Zilla Panchayat Bhawans under construction in North and East Districts, an amount of Rs.20.00 lakhs

is required. Besides the above, the Department intends to hold regular panchayat sammelans both at the district and State levels as well as conduct regular trainings and seminars for the panchayats who require training and exposure in panchayat administration. For the above, it is proposed that Rs.0.75 lakh per district per annum be earmarked for district level panchayat sammelans and Rs. 4.00 lakhs per annum be earmarked for State level Panchayat Sammelan. For the trainings and seminars to be conducted for the panchayats, an amount of Rs.1.00 lakh per annum has been provided for. Besides the above, the Department is already constructing the State Institute of Rural Development (SIRD). This institution will cater for the training needs and facilities of the rural development workers, panchayats and officers and will have a regular faculty. The expenditure for the actual construction of this institute is being met by the Government of India but the recurring expenditure for the SIRD is to be borne by the State Government. For this provision of Rs.5.00 lakhs per annum has been earmarked to cover the recurring expenditure for the SIRD.

Hence, the VIII th Plan overall proposed outlay and the 1990-91 annual plan would amount to Rs.800 lakhs, and Rs.174 lakhs respectively. Abstracts of the Schemes - wise outlays is indicated below:-

	(Rs. Lakhs)	
	VIIIth Five Year Plan	1990-91
1. Gram Panchayat.	615.00	123.00
2. Zilla Panchayat	100.00	20.00
3. Training and Sammelans	40.00	6.00
4. Construction of Zilla Panchayat Bhawans (Completion of Spill over works).	20.00	20.00
5. State Institute of Rural Development (50 per cent recurring expenditure)	25.00	5.00
	800.00	174.00



## DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN - 1990 - 91

## HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE

## COMMUNITY DEVELOPMENT AND PANCHAYATS

Statement GN - 2  
(Rs. in lakhs)

Code No.	Name of Scheme/ Project	Seventh Plan Outlay (1985-90)	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which capital content	Annual Plan 1990-91 Proposed Outlay	Of which capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
102251500 OTHER RURAL DEVELOPMENT								
PROGRAMMES								
003	State Institute of Rural Development	—	—	—	25.00	—	5.00	..
101	Panchayati Raj	75.00	89.38	14.00	735.00	—	163.00	20.00
	i) Gram Panchayat	—	—	—	615.00	—	123.00	—
	ii) Zilla Panchayat	—	—	—	100.00	—	20.00	—
	iii) Construction of State & Zilla Panchayat Bhavan	—	—	—	20.00	20.00	20.00	20.00
800	Others (Trg. & Sammelan)	—	—	—	40.00	—	6.00	—
	<b>Total</b>	<b>75.00</b>	<b>89.38</b>	<b>14.00</b>	<b>800.00</b>	<b>20.00</b>	<b>174.00</b>	<b>20.00</b>

## Land Reforms

During the Seventh Plan a provision of Rs. 120 lakhs had been made for the purpose of implementing the Land Reform programme in Sikkim. During the period complete survey of land and compilation of land records was taken and this work has been almost fully completed. Only some residual works relating to claims and objections are yet to be completed and with this it should now be possible to implement the Land Ceiling Act and distribute surplus land in the State. It is also expected that the legislation in regard to land ceiling which has been awaiting passage in the Sikkim Legislative Assembly will be passed and required rules will also be formulated. With this background, programmes which can be taken up in the Eighth Plan will include:—

- (a) Implementation of land reforms in the State,
- (b) Computerisation of land records and institute a monitoring mechanism and
- (c) Identification of surplus land and its distribution. With these objectives, the following programmes are envisaged :

### 1. COMPUTERISATION OF LAND REVENUE ADMINISTRATION

**Eighth Plan: Rs. 10 lakhs.**

**Annual Plan 1990-91 : Rs. 1.50 lakhs.**

Maintenance and updating of land records, land revenue collection and monitoring can be computerised and standard soft wares for these activities can be employed. However, it will be necessary to modify the soft ware to suite the particular requirements of Sikkim. As regards hard ware, the State has a central computer facility in the Finance Department and computer time can be utilised. However, the Land Revenue Department will have to employ programmers and operators as well as provide for soft ware modification. A provision of Rs.10 lakhs will be required for this purpose.

### 2. COMPENSATION TO LAND OWNERS

**Eighth Plan : Rs. 10 lakhs**

**Annual Plan 1990-91 : Rs. 2 lakhs**

With implementation of the land reforms and identification of surplus lands it may be necessary to pay compensation for surrendering the surplus lands and as such an outlay of Rs.10 lakhs is proposed for this purpose.

### 3. LAND RECORDS MACHINERY

**Eighth Plan: Rs. 10 lakhs**

**Annual Plan 1990-91 : Rs. 1.50 lakhs**

At the moment the Land Revenue staff are primarily concerned with collection of land revenue, survey and demarcation of holdings, updating of land records etc. There is no separate machinery in the State for the purpose of recording crop statistics and it is proposed to entrust the Land revenue machinery with the task of collecting and compiling of crop statistics on a regular basis. The machinery will also be responsible for reporting on crop failure, damages due to natural calamities etc. For this purpose the machinery will have to be strengthened and provided the necessary equipment, especially for conducting crop cuttings experiment. A provision of Rs.10 lakhs is proposed for the purpose.

### 4. CONSTRUCTION PROGRAMME

**Eighth Plan: Rs. 25 lakhs**

**Annual Plan 1990-91 : Rs. 4 lakhs**

The State has four Collectors' offices and eight sub-division offices, out of which 4 are sub divisions at the head quarters of the District Collectorate. Sufficient attention has been paid to the building of Collectorate and sub division complexes during the 6th and 7th plans. What is now required is to provide offices for the village level officers. Out of 40 village level officers, only 4 have been provided office-cum-residence. In the 8th Plan it is proposed to take up a programme of constructing office-cum-residence for the remaining village level officers. Apart from construction a certain provision is also required for land acquisition. It is proposed that during the 8th Plan twenty village level centres will be established for this purpose a provision of Rs.25 lakhs is proposed.

DRAFT EIGHTH FIVE YEAR PLAN (1990-95) & ANNUAL PLAN-1990-91  
DEVELOPMENT SCHEMES / PROJECT : OUTLAY & EXPENDITURE  
DEPARTMENT : LAND REFORMS

Statement GN -2  
(Rs. in Lakhs)

Code No.	Name of the Scheme/ project	Seventh Plan Outlay (1980-95)	Expendi- ture 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which capital content	Annual Plan 1990-91 Proposed Outlay	Of which capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
102250600 LAND REFORMS								
001	Direction & Adminis- tration	107.50	85.63	19.50	—	—	—	—
012	Statistics & Evaluation	—	—	—	10.00	—	1.50	—
103	Maintenance of Land Records ( Computerisation)	—	—	—	10.00	—	1.50	—
104	Assistance to Allotees of surplus Land	10.00	—	0.25	—	—	—	—
800	Other Expenditure	—	7.63	2.50	35.00	25.00	6.00	4.00
(i)	Office Construction	—	—	1.75	25.00	25.00	4.00	4.00
(ii)	Land aquisition	—	7.41	2.00	10.00	—	2.00	—
(iii)	Minor Works	2.50	0.22	0.50	—	—	—	—
Total		120.00	93.26	24.00	55.00	25.00	9.00	4.00

## Irrigation And Flood Control

1. Sikkim falls within the high rainfall zone of the country and during the monsoon which lasts from the beginning of June to almost the middle of October the state witnesses a very high precipitation practically in all its parts. While this phenomenon assures availability of water for agricultural purposes for approximately eight months in the year, the necessity for providing water for agricultural purposes during the winter season and the need for providing water in the drier southern part of the State, underlines the urgency of having to pay specific attention to creation of irrigation potential in the State. The availability of water during the dry season will give a definite boost to the plans in the direction of growing double and triple crops as well as vegetables. Creation of irrigation potential also help farming activities in the dry areas.

2. The State has a very large number of streams some of which have so far been tapped for the purpose of drawing water and construction of channels to enable agricultural fields to receive water. While this strategy has helped in creation of a number of irrigation projects and increase in availability of water, these projects have not been uniformly successful as several of them have tended to make available water only during the rainy season. Further the channels constructed have also suffered due to landslides, soil erosion and damages, as a result of which the full potential of the investments made so far have not been realised.

3. Specific attention to irrigation has been paid only from 1976 when a separate Irrigation Department was created but this was attached to the Power Department with the objective of constructing multi purpose irrigation schemes. Minor irrigation was the responsibility of the Panchayat and Rural Works Department. However in 1986 a separate department for irrigation with the specific mandate

of looking after minor irrigation has been created. It is also realised that in Sikkim it would not be advisable to go in for large scale multi purpose irrigation schemes, not only because of the terrain conditions but also because of the problems of silting, water logging etc. that may result if such schemes are implemented.

4. During the Sixth Plan period irrigation potential of 6255 hectares was created primarily by implementing run off streams irrigation schemes and the potential utilised during this period is estimated to be 3435 hectares. During this period for the first time hydrams were installed but there have been a number of technical problems in effective utilisation of this device.

5. During the Seventh Plan period plans were undertaken to accelerate construction of new irrigation schemes to create 8000 hectares of irrigated agricultural land and ensure consolidation and better utilisation of the irrigation potential created so far. During this period plans were also made to instal hume pipes so that the damage to channels due to land slides etc. are avoided. Further HDPE pipes were also utilised in unstable areas. Closer coordination was established with the Agriculture and Land Use & Environment Department so that utilisation is improved and steps to ensure protection of water sources is also taken.

6. The State has not so far been able to utilise ground water sources, primarily because the efforts of the Central Ground Water Board to locate sources of water have not been very successful and the areas located are being used primarily for drinking water purposes.

7. The Seventh Plan achievement in terms of irrigation potential created and utilised is indicated in the table below :

is also required towards formulating and implementing modern scientific methods of irrigation such as drip irrigation. Further

Year	Potential	Potential Utilisation
	Creation	Target-Achievement
	Target-Achievement (in hectares)	(in hectares)
85—86	1500—1007	750—1050
86—87	1356—1569	1100—1192
87—88	1550—1472	1300—1285
88—89	1400—1400	1200—1200
89—90	1500—1500	1300—1300
	7306—6948	5650—6027

### 8. EIGHTH FIVE YEAR PLAN-PROPOSALS

As mentioned above the efforts of the department to implement run off stream projects has to a considerable extent suffered because of the inadequacy of sources of water, damage to water channels etc. Further the department is also implementing a number of small schemes whose cost effectiveness have not been very high. It is therefore considered necessary to reorient the strategy during the 8th Plan so that we would not only ensure that water is available throughout the year but more importantly the water is fully utilised in the farmers' fields. It has been felt that only these schemes which have been properly investigated in terms of adequacy of the sources of water the quantum of discharge over a period of time, the durability of the flow, the cost effectiveness of the project etc. should be taken up and the department's efforts concentrated on a specific limited number of schemes whose essentiality and viability is established after proper investigation. Further the potential available for irrigation from the perennial rivers of the State such as Rangeet, Teesta and the smaller rivers which have flow of water throughout the year should be exploited after proper study and determining of the correct location of projects so that utilisation is ensured. The exploitation of such perennial sources can be in terms of lift irrigation scheme and establishment of pumps for pumping up water to suitable reservoirs and drawing water therefrom. Attention

restoration of old irrigation channels which have not been utilised properly and which requires augmentation in terms of water supply, widening and strengthening of water conductors etc. will also have to be taken care of. In the 8th Plan period it is also proposed to enact an irrigation act and start collection of water revenue from the beneficiaries. The scheme-wise details are given below :

#### (i) DIRECTION AND ADMINISTRATION

**Eighth Plan : Rs. 75.00 lakhs**

**Annual Plan 1990-91 : Rs. 12 lakhs**

An outlay of Rs. 75.00 lakhs has been provided under the head for meeting the establishment cost of the department. This also includes payment of rent for office and stores taken on hire and also purchase of new vehicles.

#### (ii) SURVEY AND INVESTIGATION

**Eighth Plan : Rs. 25.00 lakhs**

**Annual Plan 1990-91 : Rs. 6 lakhs**

The survey and investigation and collection of data for irrigation schemes is most essential. As such, a provision of Rs. 25.00 lakhs has been made for the same.

#### (iii) MACHINERY AND EQUIPMENT

**Eighth Plan Rs. 10.00 lakhs**

**Annual Plan 1990-91 : Rs. 2 lakhs**

A provision of Rs. 10.00 lakhs has been made for procurement of survey instruments and other equipments.

**(iv) MINOR IRRIGATION-DIVERSION SCHEME**

**Eighth Plan: Rs. 800.00 lakhs**  
**Annual Plan 1990-91 : Rs. 160 lakhs**

Almost all the Minor Irrigation Schemes in Sikkim are constructed by tapping surface flow sources like small rivers and streams. A total of Rs. 800.00 lakhs has been provided for taking up such schemes. The following schemes are being considered during the 8th Five Year Plan :

**A. East District :**

1. Rhenock Valley Irrigation Scheme.
2. Linkey-Ankuchen-Biring Minor Irrigation Scheme.
3. Pachey Khola to Middle and Lower Duga Lakha Minor Irrigation Scheme.

**B. West District :**

1. Reshi to Mangalbarey Minor Irrigation Scheme.
2. Extension of Sombaria Daramdin Scheme.
3. Augmentation of Rinchenpong Storage Scheme.

**C. South District :**

1. Renji Khola-Kamrang Minor Irrigation Scheme.
2. Samtam Samruk Minor Irrigation Scheme.
3. Manpur Sumbuk Minor Irrigation Scheme.

**D. North District :**

1. Kabi Tingda Minor Irrigation Scheme from B 2.
2. Taryang to Gor Minor Irrigation Scheme.
3. Bichu Khedong Leema Minor Irrigation Scheme in Lachung.

Besides, the above schemes renovation and restoration of the old channels as well as the existing traditional kutchha channels shall also be taken up in the 8th Five Year Plan.

**(v) MINOR IRRIGATION-LIFT IRRIGATION**

**Eighth Plan: Rs. 100.00 lakhs**  
**Annual Plan 1990-91 : Rs. 3 lakhs**

It is proposed to take up lift irrigation in the valleys where water is abundant from the major rivers flowing through the state. In this scheme, lift irrigation utilising hydrams and water turbines shall be taken up. An outlay of Rs. 100.00 lakhs has been provided for this scheme.

**(vi) MINOR IRRIGATION-COMMAND AREA DEVELOPMENT**

**Eighth Plan: Rs. 25.00 lakhs**  
**Annual Plan 1990-91 : Rs. 4 lakhs**

A provision of Rs. 25.00 lakhs have been made under the Command Area Development Programme where the irrigation department shall construct field channels from main irrigation channel.

**(vii) MINOR IRRIGATION : STRENGTHENING OF GROUND WATER AND SURFACE WATER (MINOR IRRIGATION) ORGANISATION IN THE STATE**

**Eighth Plan: Rs. 15.00 lakhs**  
**Annual Plan 1990-91 : Rs. 1 lakh**

For the strengthening of surface and ground water organisation a provision of Rs. 15.00 lakhs has been made. This is a centrally sponsored scheme in the ratio of 50:50. The scheme is made for the procurement of survey and investigation equipments for the development and strengthening of surface and ground water (Minor Irrigation) organisation.

**(viii) MINOR IRRIGATION-ENCOURAGING IRRIGATION THROUGH THE USE OF ENERGY SAVING DEVICES**

**Eighth Plan: Rs. 15.00 lakhs**  
**Annual Plan 1990-91 : Rs. 2 lakhs**

A provision of Rs. 15.00 lakhs has been made for this scheme which is a centrally sponsored scheme in the 50:50 ratio. In this scheme, the use of energy saving devices like hydrams, water turbines, solar pumps, sprinklers and drip irrigation shall be taken up.

Out of Rs.1065.00 lakhs proposed for the Eighth Plan period, Rs.190.00 lakhs has been provided for Annual Plan 1990-91. Schemewise allocation is given in statement GN - 2.

### FLOOD CONTROL

**Eighth Plan: Rs. 150.00 lakhs**

**Annual Plan 1990-91 Rs. 25 lakhs**

Unlike in other States of the country, Sikkim does not experience the hazards of floods. However, the magnitude of damages due to land slides, erosion of river banks and slopes are very great and are of annual nature, involving many lives and properties.

So far, the flood control works taken up in the State comprises mainly of Bank Protection

Works along the turbulent rivers running through towns and Industrial areas exposed to erosion hazards, which endanger landed property, houses and Industrial complexes. Till date 6 (six) projects of bank protection works have been completed, in a phased manner, consistent with the resources available.

In the Eighth Plan a comprehensive programme for taking up river bank protection works throughout the State is to be prepared. Works are envisaged to be taken up for Rongli, Rorathang, Dikchu, Reshi and Legship Bazar and selected villages prone to such damages. It is also proposed to take up protection works of cultivable areas, where the rivers are eroding the lands, by causing toe erosions.

A provision of Rs.150 lakhs has been made for flood control in the Eighth Five Year Plan.

## DRAFT EIGHTH FIVE YEAR PLAN ( 1990 - 95 ) &amp; ANNUAL PLAN 1990 - 91

## HEADS OF DEVELOPMENT - OUTLAY &amp; EXPENDITURE

## DEPARTMENT : IRRIGATION

Statement GN - 2

( Rs in lakhs )

Code No.	Name of the Scheme/Project	Seventh Plan outlay 1985-90	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed outlay Eighth plan 1990-95	Of which Capital content	Annual plan 1990-91 proposed outlay	Of which Capital content
1.	2.	3.	4.	5.	6.	7.	8.	9.
104000000	IV. IRRIGATION AND FLOOD CONTROL							
140270200	Minor Irrigation							
01	Surface Water							
102	Lift Irrigation Scheme	—	—	—	100.00	95.00	3.00	—
103	Diversion scheme	849.50	592.86	166.50	800.00	800.00	160.00	160.00
800	Other expenditure	—	—	—	55.00	—	7.00	—
	(i) Command Area development	—	—	—	25.00	—	4.00	—
	(ii) Strengthening of surface and ground Water organisation (50:50)	—	—	—	15.00	—	1.00	—
	(iii) Encouraging irrigation through use of Water/energy saving devices (50:50 CSS)	—	—	—	15.00	—	2.00	—
02	Ground Water	—	—	—	—	—	—	—
005	Investigation	10.00	1.55	—	—	—	—	—
80	General							
001	Direction & Adm.	119.00	78.82	30.00	75.00	—	12.00	—
005	Investigation & Survey	18.50	14.01	3.00	25.00	—	6.	—
052	Machinery & Equipment	3.00	5.54	0.50	10.00	—	2.00	—
05	Total	1000.00	692.78	200.00	1065.00	895.00	190.00	160.00
104271100	FLOOD CONTROL & DRAINAGE							
01	FLOOD CONTROL							
103	Civil Works (Bank Protection Scheme)	105.00	76.94	25.00	150.00	150.00	25.00	25.00



## CHAPTER XII

## Energy

1. The innumerable streams and rivers flowing down the Himalayas have provided Sikkim with an immense potential for development of hydro electric power. Power generation has been recognised as one of the fundamental requirements for any economic and social development and hence this area is being accorded a very high priority in the overall development effort.

2. The total installed capacity during the fifth plan period was only 3 MW and was being generated from the three micro hydel schemes namely Jali Power House, Rimbi Micro Hydel Project and the Rothak Micro Hydel station. With the commissioning of the first 6 MW unit of the Lower Lagyap Hydel Project the total installed capacity increased to 9 MW. This was at that moment sufficient to meet the demand of the State as the Power available was only being used to cover Gangtok, the State head quarters and some of the main urban centres in the State.

3. In the VIth Plan period the demand for Power increased with the growth of population, the increase in the number of urban centres and with the pace of industrialisation picking-up in the State and the taking up of rural electrification. The Rural electrification schemes that were being taken up were increased to cover 189 villages out of the 405 inhabited revenue blocks that were identified in the State. During this period the second stage of the Lower Lagyap Project (6 MW) was commissioned along with a 2 MW diesel unit at Gangtok thereby increasing the net installed capacity in the State to about 17 MW. Two new projects namely Rimbi Stage II (1 MW) and the Rongnichu Stage II (2.5) was sanctioned in 1984—85 to supplement the existing net installed capacity in the State.

4. In the VIIth Plan the two hydel projects namely Rimbi Stage II and Rongnichu Stage II have been completed along with the Lachen Micro Hydel Project (1.2 MW). In spite of the increase in the generating capacity, the gap between demand and supply has widened and the State has had to rely on the State's share from the Chukha hydel project in Bhutan and the Farakha Thermal Power Station in

West Bengal. Two more Hydel Project namely Mayongchu (4 MW) and Upper Rongnichu (8 MW) have also been taken up and are to be completed in the early part of VIIIth Plan period. The big surge in the demand can be attributed to the growth in the population and the increase in the developmental activities with the pace of industrialisation picking up in the State. During the Plan period an additional 187 villages are likely to be covered under the Rural electrification Programme being implemented in the State with the loan assistance being obtained from the Rural Electrification Corporation. In addition to the Hydel projects being taken up by the State Government, the Ramam project Stage II has also been taken up by the West Bengal Government and the Rangeet Hydel Project and the Teesta Hydel Project are proposed to be taken up under the Central sector. In all these projects Sikkim has a certain share of power but there has already been very considerable delays in the sanctioning of these projects and it is possible that the State may not be able to get any benefit from these projects. In view of the growing demand, one major hydel project has been proposed namely Rathongchu hydel project (30 MW) which is to be taken up during the VIIIth Plan period.

5. In the VIIIth Plan period the main emphasis will be on the completion of the on going schemes namely Mayongchu (4 MW), Upper Rongnichu (8 MW), Kalez Kholu (2 MW) and the Pury Kholu (0.2 MW) and Lachung (0.2 MW) Micro Hydel Schemes. The rise in the price of construction materials have already brought about considerable cost escalation in the project cost of all these schemes and it is envisaged that a sum of Rs. 2668 lakhs would be required to complete these projects. As the Department is seeking a loan of Rs. 500 lakhs from the Power Finance Corporation to cover part of the expenditure on the spill over projects, a sum of Rs. 2168 lakhs has been proposed to be met from plan expenditure. The project wise details is indicated below:

( Rs. in lakhs )

Approved & Ongoing Scheme	Sanctioned Cost	VIIIth Plan Expenditure	VIIIth Plan Proposed Outlay	Of which share of Power Finance Corporation
1. Mayongchu 4 ( MW )	742	321	657	200
2. Upper Rongnichu Hydel Scheme	1452	517	1306	300
3. Kalez Khola Hydel Scheme	480	15	455	
4. Pury Khola Micro Hydel	60	60	100	
5. Lachung Micro Hydel				
6. Repairs of Capital Nature	125	150	150	
<b>TOTAL :</b>			2668	500

One major project proposed to be taken up in the VIIIth Plan is the Rathongchu Hydel Project (30MW) for which a provision of Rs. 2500 lakhs has been kept under plan and Rs. 500 lakhs is proposed to be obtained as a loan from the Power Finance Corporation. This project will be taken up by 1991-92.

6. Along with the completion of the new hydel projects and the increase in the generating capacity, emphasis will also be laid on the transmission and distribution net work to evacuate power and spread the benefit to all corners of the State, possibly, taking into consideration the need to improve and remodel the existing systems at important load centres. The transmission and distribution programmes in the VIIIth Plan envisage completion of all ongoing schemes of the VIIIth Plan, construction of Sub-station at Rongli, Namchi and Mangan. The transmission and distribution programme has become all the more important in view of the emphasis being laid on the Rural Electrification Programme being implemented in the State. In the VIIIth Plan all the remaining villages which are yet to be covered by the Rural Electrification Programme is to be electrified and intensificational works to be funded by the R.E.C. to cover as many power consumers in the electrified villages as possible is proposed to be taken up.

The other proposals of the 8th Plan are detailed below.

### 1. DIRECTION AND ADMINISTRATION

**Eighth Plan : Rs.100 Lakhs**

**Annual Plan 1990-91 : Rs. nil**

In the VIIIth Plan as the Department propose to undertake some micro hydel schemes and the Rathongchu hydel project (30 MW) it is envisaged that some additional manpower would be required to handle the projects. A sum of Rs. 100 lakhs has been proposed under this head during the plan period for recruiting the additional manpower required and providing the necessary services.

### 2. SURVEY AND INVESTIGATION

**Eighth Plan : Rs.40 Lakhs**

**Annual Plan 1990-91 : Rs.10 Lakhs**

As the State has immense potential for the development of hydro electric power a sum of Rs. 20 lakhs has been proposed for taking up the Survey and Investigation of hydel schemes and an additional Rs. 20 lakhs has been proposed to undertake Survey and Investigation of EHV transmission systems during the VIIIth Plan period.

### 3. BUILDINGS

**Eighth Plan : Rs.100 Lakhs**

**Annual Plan 1990-91 : Rs.20 Lakhs**

The Department has undertaken the construction of the Divisional/Sub-division Office

at Gyalshing and is also contemplating construction of residential quarters for its staff as well as new sub-divisional Office in other areas. To complete the ongoing work and to take up the new construction a sum of Rs. 100 lakhs has been proposed for the Eighth Plan period.

#### 4. RURAL ELECTRIFICATION PROGRAMME

**Eighth Plan : Rs. 2022 Lakhs**

**Annual Plan 1990-91 : Rs. 390 Lakhs**

In the VIIIth Five Year Plan the department proposes to complete the electrification of the remaining inhabited villages being covered under the Rural Electrification Programme and also commence the 'intensification' works to cover all the 405 inhabited Villages which have been electrified under the Rural Electrification Programme. A sum of Rs. 2022 lakhs is proposed to cover all the schemes under this programme during the VIIIth Plan period.

#### 5. TRANSMISSION AND DISTRIBUTION

**Eighth Plan : Rs. 2430 Lakhs**

**Annual Plan 1990-91 : Rs. 550 Lakhs**

With the increase in the net installed capacity in the State with the commissioning of the new hydel projects namely Rimbi Stage II, Rongnichu Stage II and the completion of the Upper Rongnichu and the Meyongchu in the early period of the VIIIth Plan it is proposed to take up the extension and the distribution net work to cover as much areas as possible. In this programme, along with the extension of distribution network, improvement and remodelling of systems at important load centres, augmentation of transformer capacity and the upgradation of 11 KV and LT lines would be taken up. The main projects proposed to be taken up are construction of substations and setting up of 132 and 66 KV line for the evacuation of Rathongchu Hydel generation, Tadong-Rongli 66 KV line with 66/11 substation at Rongli and two more 66/11 KV substation at Namchi and Mangan. A sum of Rs. 2430 lakhs has been proposed to take up the transmission and distribution works proposed for the VIIIth Five Year Plan.

DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN- 1990 - 91

HEADS OF DEVELOPMENT	OUTLAY AND EXPENDITURE	Statement GN-2
DEPARTMENT: POWER		(Rs. in lakhs)

Code No.	Name of the Scheme/Project	Seventh Plan Outlay (1985-90)	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay		Of which Capital content	Annual Plan 1990-91 Proposed Outlay		Of which capital content
					Eighth Plan 1990-95 SP PFC			SP	PFC	
(1)	(2)	(3)	(4)	(5)	(6)		(7)	(8)		(9)
10500000	<b>ENERGY POWER</b>									
A.	<b>GENERATION</b>									
01	Hydel Hydro-Electric Schemes									
I	Ongoing Schemes									
i)	Mayongchu Hydel Scheme (2x2MW)	171.04	150.00	457.00	200.00	657.00	100.00	200.00	300.00	
ii)	Upper Rongnichu Hydel Scheme (4x2MW)	1091.00	217.38	300.00	1006.00	300.00	1306.00	320.00	100.00	420.00
iii)	Kalez Khola Hydel Scheme (4x500KW)	..	20.00	25.00	455.00	..	455.00	180.00	..	180.00
iv)	Micro Hydel Schemes	..	11.94	20.00	100.00	..	100.00	100.00	..	100.00
v)	Repairs of Capital Nature	125.00	86.52	70.00	150.00	..	150.00	30.00	..	30.00
vi)	Rongnichu Hydel Scheme Stage-II	408.00	571.22	64.63	..	..	..	..	..	..
vii)	Rimbi Hydel Scheme Stage - II	114.00	170.31	21.37	..	..	..	..	..	..
	Sub-total (I)	1738.00	1248.41	651.00	2168.00	500.00	2668.00	730.00	300.00	1030.00
II	New Schemes									
i)	Rathongchu Hydel Project (3x10MW)	..	..	..	2500.00	500.00	3000.00	150.00	..	150.00
	Sub-total	..	..	..	2500.00	500.00	3000.00	150.00	..	150.00
	Total (A)-Generation (I + II)	1738.00	1248.41	651.00	4668.00	1000.00	5668.00	880.00	300.00	1180.00
05	<b>B. TRANSMISSION AND DISTRIBUTION.</b>									
800	Other Expenditure									
i	Approved and Ongoing Schemes for benefits during 8th Plan	511.00								
(i)	66 KV, S/C line from Tadong to Sichey together with 2x5 MVA S/S at Sichey	..	154.87	25.00	20.00	..	20.00	20.00	..	20.00

## DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN-1990-91

HEADS OF DEVELOPMENT:

OUTLAY AND EXPENDITURE

Statement GN..2

DEPARTMENT: POWER

(Rs. in Lakhs)

Code No.	Name of Scheme/ Project	7th Plan Outlay 1985-90	Expenditure 1985-86-88-89	Outlay 1989-90	8th Plan proposed outlay 1990-95 SP PFC	Of which capital outlay	Annual Plan 1990-91 Proposed outlay SP PFC	Of which capital outlay		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)		
ii)	66 KV, S/C line from Melli to Geyzing together with 2x2.5 MVA S/S at Geyzing	..	213.68	140.00	100.00	..	100.00	100.00	..	100.00
iii)	66 KV, Namchi Jorethang S/c line with 2x5 MVA S/S at Jorethang	..	..	25.00	200.00	..	200.00	80.00	..	80.00
iv)	11/66 KV Synchronising S/S at Topakhani	..	..	60.00	100.00	..	100.00	60.00	..	60.00
	Sub-total (I)	511.00	368.55	250.00	420.00	..	420.00	260.00	..	260.00
II	New Schemes for benefit during 8/9th Plan Period:									
i)	Rathong HEP-Rangit HEP--Gangtok, 132 KV, S/c line with 3x12.5 MVA S/s at Gangtok.	..	..	..	800.00	..	800.00	..	..	
ii)	Rathong HEP-Geyzing 132 KV S/c line with a 132/66 KV S/s at Geyzing	..	..	..	60.00	..	60.00	..	..	
iii)	Tadong-Rongli 66 KV S/c line with 2x6.3 MVA S/s at Rongli	..	..	..	40.00	..	40.00	..	..	
iv)	L.I.L.O. on Mayonchu HEP-Phodong 66 KV, S/c line at Mangan with 1x5 MVA S/s.	..	..	..	200.00	..	200.00	10.00	..	10.00
v)	L.I.L.O. on Melli-Geyzing 66 KV, S/c Line at Namchi with 2x6.3 MVA S/S.	..	..	..	200.00	..	200.00	40.00	..	40.00
vi)	Augmentation/Replacements of 66 KV S/s	..	..	..	90.00	..	90.00	20.00	..	20.00
vii)	Advance action on Schemes Yielding benefits during 9th Plan	..	..	..	10.00	..	..	..	..	..

## DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN-1990-91

HEADS OF DEVELOPMENT: OUTLAY AND EXPENDITURE Statement GN. 2

DEPARTMENT: POWER

(Rs. in Lakhs)

Code No.	Name of the Scheme/Projects	7th Plan	Expendi-	Outlay	8th Plan	Of which	Annual Plan	Of which		
		Outlay 1985-90	ture 1985-86 1988-89	1989-90	Proposed Outlay 1990-95 SP PFC	capital Outlay	1990-91 Proposed Outlay SP PFC	capital Outlay		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)		
	Sub-Total (I+II)	..	..	..	1400.00	..	1390.00	70.00	..	70.00
	Total-Tr. (I+II)	511.00	368.55	250.00	1820.00	..	1810.00	330.00	..	330.00
III	DISTRIBUTION WORKS:									
i)	Spill-over works from 7th Plan	361.00	678.34	150.00	110.00	..	110.00	100.00	..	100.00
ii)	Normal Development works/Extension of 11 KV and LT lines and S/S to be taken up during 8th Plan	..	..	..	200.000	..	200.00	40.00	..	40.00
iii)	System Improvement/Remodelling works for reduction works to be taken up during 8th Plan	..	..	..	300.00	..	300.00	80.00	..	80.00
	Sub-total(III) (Distribution).	361.00	678.34	150.00	610.0	..	600.00	220.00	..	220.00
	Total (B) - T & D (I + II + III)	872.00	1046.89	400.00	2430.00	..	2420.00	550.00	..	550.00
06 C.	RURAL ELECTRIFICATION									
800	Other Expenditure									
(i)	Works under State plan	..	132.76	30.00	200.00	..	200.00	50.00	..	50.00
ii)	REC Funded On-going works (Spillover from 7th plan out of 31 Schemes sanctioned by REC) (a) Normal.	1009.00	1146.65	190.00	1322.00	..	1322.00	300.00	..	290.00
	(b) MNP	70.00	67.37	..	..	..	..	..	..	..
iii)	REC Funded Intensification works to be taken up during 8th plan.									
	(a) Normal	..	..	..	200.00	..	200.00	50.00	..	50.00
	(b) MNP	..	..	..	150.00	..	150.00	..	..	..

## DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN-1990-91

HEADS OF DEVELOPMENT: OUTLAY AND EXPENDITURE Statement GN--2

DEPARTMENT: POWER

(Rs. in Lakhs)

Code No.	Name of the Scheme/ project	Seventh Plan Outlay 1985-90	Expen- diture 1985-86 to 88-89	Outlay 1989- 90	proposed Outlay Eighth Plan 1990-95 SP PFC	Of which capital Outlay	Annual plan 1990-91 Proposed Outlay  SP PFC	Of which capital Outlay		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)		
iv)	REC Funded System Improve- ment works to be taken up 8th plan.	..	..	..	150.00	..	150.00	..	..	—
	Total (c)	1079.00	1346.78	220.00	2022.00	..	2022.00	390.00	..	390.00
80	General									
001	Direction and Admn.	100.00	326.36	70.00	100.00	..	..	..	..	..
101	Purchase of Power	..	28.46	..	..	..	..	..	..	..
800	Other									
i)	Expenditure									
	Building	80.00	76.75	21.00	..	100.00	100.00	20.00	..	20.00
a)	Spill over liabilities	80.00	76.95	21.00	50.00	..	50.00	20.00	..	20.00
b)	New Schemes	..	..	..	50.00	..	50.00	..	..	..
ii)	Survey & Inves- tigation Hydel	25.00	16.90	8.00	20.00	..	..	8.00	..	..
iii)	Survey & Investigation Tr. System	..	..	..	20.00	..	..	2.00	..	..
	Total Power	3894.00	4090.75	1370.00	9360.00	1000.00	10210.00	1870.00	300.00	2170.00

## NEW AND RENEWABLE SOURCES OF ENERGY

1. The activities relating to promotion of new and renewable sources of energy are part of the rural development programmes though in respect of some of the projects the coverage is not confined to the rural areas. The basic sources of energy in Sikkim is fuel wood and while in the rural areas the dependence on fuel wood is overwhelming, even in urban areas the main sources of energy for cooking purposes continues to be fuel wood. It has been estimated that even in Gangtok nearly 65 percent of the population depend upon wood as a source for cooking purposes. This preponderant dependence on fuel wood has serious implication as far as the green cover in the State is concerned and if the present trend is not arrested and dependence on fuel wood brought down quite drastically, the rate of denudation of the green cover which is already high is likely to accelerate at a galloping pace. Such denudation cannot but result in heavy loss of green cover with consequences in terms of soil run off, degradation of catchment areas, increasing reduction in the availability of the fuel wood, not to mention the long term effects on the quality of the atmosphere. The deterioration in the catchment areas in Sikkim can have a serious impact on the river system that originate in Sikkim, such as Teesta and Rangeet. All these underline needs for development of alternative sources of energy of renewable character and drastic reduction of the dependence of fuel wood. A multi pronged strategy is called for and during the 7th Plan very significant steps were taken in these areas with the introduction of a number of programmes calculated to promote the use of alternative fuel and encourage the people to reduce the dependence on the forests.

2. The State has abundant potential for development of hydro power and overall process of planning development of hydro power has been given top most priority. No doubt installation of power station take quite some time but the spread of electricity in the State has been rapid both during the 6th and 7th Plan and it is expected that by the middle of the 8th Plan almost all the village in Sikkim would have been electrified. This would no doubt eliminate the necessity to depend upon other

sources of energy for lighting purpose. The major problem however is in regard to fuel for cooking and in the cold weather for heating purpose particularly in the higher altitudes. The strategy will therefore have to be a reduction in the role being played by fuel wood in the energy scene at the village level, keeping in mind the fact that use of fuel wood cannot be altogether eliminated in the foreseeable future. While therefore bio-gas, solar energy, wind energy and measures for improving the fuel efficiency are to be taken up in a big way, at the same time specific measures to cater to the needs for fuel wood in the rural areas have to be made part of the programme. No doubt the spread of kerosene, and greater use of natural gas particularly in urban areas need also to be encouraged as the country has made considerable progress in regard to exploration and exploitation of natural gas and the availability has also very considerably improved. In the back ground of the above facts the programmes to be taken up during the 8th Plan are discussed below :-

### (a) IMPROVED CHULAS

**Eighth Plan : Rs.20 Lakhs**

**Annual Plan 1990-91 : Rs.5 Lakhs**

The programme is primarily meant to improve the fuel sufficiency of fire wood and was taken up in Sikkim for the first time in the 7th Plan period. It is expected that 16000 improved chulhas would have been installed during the period as against the target of 18000. It is estimated that some 60,000 households will have to be covered in the rural areas during the 8th Plan, on the basis of the projected growth of population in the State however given the capacity of the State execute a project of this nature material constraint etc. It is proposed to set up 20,000 improved chulhas during the 8th Plan with an outlay of Rs.20 lakhs.

### (b) BIO-GAS

**Eighth Plan : Rs. 50 Lakhs**

**Annual Plan 1990-91 : Rs.7.80 Lakhs**

During the 7th Plan period nearly 300 bio-gas plants are expected to be set up in the State, against the target of 185 numbers. Considering the very substantial benefit that flow from this programme and the increasing cattle



population in the State it is proposed to instal 1000 plants during the 8th Plan period. The outlay proposed is Rs. 50 lakhs which will be used also for training adequate manpower. Attempt will also be made to utilise human waste to run the bio-gas plants.

**(c) ENERGY PLANTATION**

**Eighth Plan : Rs.7.50 Lakhs**

**Annual Plan 1990-91 : Rs.1 Lakh**

During the 7th Plan approximately 150 Hectares of energy plantation would have been completed. This programme will be implemented basically in the area where integrated rural energy programme is being taken up and for the 8th Plan an outlay of Rs. 7.50 lakhs is proposed for a physical target of 250 Hectares.

**(d) BIOMASS GASIFICATION**

**Eighth Plan : Rs.4.50 Lakhs**

**Annual Plan 1990-91 : Rs. 0.50 Lakh**

The intention is to utilise all types of waste for producing energy. However during the 7th Plan no progress was recorded in this direction. This programme will have to be therefore taken up on experimental basis and is proposed to install 2 numbers of gasifiers with a rating of 20 Kilo watts of power at an approximate cost of Rs. 4.5 lakhs.

**(e) WIND ENERGY**

**Eighth Plan : Rs.1 Lakh**

**Annual Plan 1990-91 : Rs.0.20 Lakh**

During the 7th Plan period 4 wind mills of 300 watts capacity would have been installed primarily for battery charging purpose. The scope for implementing this technology in Sikkim is limited since the required wind velocities are not available in very many places. However the programme will be implemented more or less on experimental basis during the Plan with a provision of Rs.1 lakh.

**(f) SOLAR ENERGY**

**Eighth Plan : Rs. 23.50 Lakhs**

**Annual Plan 1990-91 : Rs. 4 Lakhs**

Solar water heaters, solar cookers and solar photo voltaic street lighting devices have been installed in hospitals and street lighting and they have been found particularly useful in the sun belt where the number of sunny days are much larger. We propose to continue the programme during the 8th Plan. It is proposed to instal 70 solar water heaters at a cost of Rs. 10 lakhs, 175 solar photo voltaic cell at an estimated cost of Rs.13 lakhs and 15 solar cookers at a cost of Rs.50,000/-

**(g) PUBLICITY**

**Eighth Plan : Rs. 5 Lakhs**

**Annual Plan 1990-91 : Rs. 0.50 Lakh**

It is extremely important to bring home to the people particularly in the rural areas the advantage of alternative sources of energy and the urgent necessity to reduce dependence on fuel wood. A well organised publicity programme for promoting and popularising the programme connected with development of alternative energy sources is extremely important. It is proposed to implement the programme in an attractive manner during the 8th Plan with a provision of Rs. 5 lakhs for the 8th Plan period.

**(h) DIRECTION & ADMINISTRATION**

**Eighth Plan : Rs. 20 Lakhs**

**Annual Plan 1990-91 : Rs. 3 Lakhs**

With the considerably expanded physical targets and coverage of more areas particularly under the IREP programmes there is a need for strengthening the administration framework in the State. It is proposed to create two posts of Assistant Project Officer, Junior Engineer and Supervisors with a view to take care of increased responsibilities and training programmes. A provision of Rs. 20 lakhs will be required for this purpose.

DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN-1990-91  
 HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE Statement GN - 2  
 DEPARTMENT : NON-CONVENTIONAL SOURCES OF ENERGY (Rs. in Lakhs)

Code No.	Name of the Scheme/Project	Seventh Plan Outlay (1985-90)	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which Capital content	Annual Plan 1990-91 Proposed Outlay	Of which capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
105281000	NON-CONVENTIONAL SOURCE OF ENERGY							
01	Bio-Gas							
101	National Programme for Bio-Gas	17.50	10.91	9.00	50.00	—	7.80	—
103	Bio-Mass							
	(i) Energy plantation	4.00	2.10	3.00	7.50	—	1.00	—
	(ii) Biomass Gasification	3.00	—	—	4.50	—	0.50	—
	T o t a l	24.50	13.01	12.00	62.00	—	9.30	—
02	Solar							
101	Solar Thermal (Solar Water Heater)	—	5.05	3.00	10.00	—	2.00	—
102	Photovoltaic (P.V. Cells)	—	3.18	1.00	13.00	—	2.00	—
800	Other Expenditure (Solar Cooker)	20.00	0.50	0.50	0.50	—	—	—
	T o t a l	20.00	8.73	4.50	23.50	—	4.00	—
03	Wind							
101	Wind Energy	4.00	—	1.00	1.00	—	0.20	—
	T o t a l	4.00	—	1.00	1.00	—	0.20	—
60	Others							
001	Direction & Admn.	10.00	8.17	3.00	20.00	—	3.00	—
101	Improved Chullah	17.50	17.14	6.00	20.00	—	5.00	—
600	Other sources (Micro-Hydel)	9.00	19.00	—	—	—	—	—
800	Other Expenditure							
	i) Office Expenditure	11.00	1.86	2.50	—	—	—	—
	ii) Publicity	4.00	1.24	1.00	5.00	—	0.50	—
	T o t a l	51.50	47.41	12.50	45.00	—	7.50	—
	Grand Total	100.00	69.15	30.00	131.50	—	22.00	—

## CHAPTER XIII

**Industries**

1. The policy of framework in regard to industrialisation in Sikkim has to be formulated keeping in mind the particular factor endowments that the State has, the limitations that we face in regard to resources, particularly minerals and industrial raw materials as well as manpower. The State is not rich in raw material resources and apart from the deposits of copper, lead and zinc, no other viable and exploitable mineral deposits have so far been discovered. Even in regard to other industrial raw materials in terms of agricultural produce or petro chemicals, the State has serious limitations. On the other hand the State enjoys a salubrious climate, a dust free atmosphere and peaceful industrial relations. The high cost of transportation and the limited internal market as well as the limited entrepreneurial talent, has also to be taken note of. The State also attaches considerable importance to the need to protect and preserve the ecological balance and environmental status obtaining in the State.

2. Keeping these considerations in mind the policy therefore has to be to encourage and promote the establishment of "Clean" industries which cause no pollution to the atmosphere or to the rivers and streams. Further the products of the industries to be established should also be capable of bearing the high transportation cost both for the inflow of raw materials and outflow of finished goods. Industries which can manufacture "high value low volume" products are therefore to be accorded high priority. Agro based industries, processing industries and other small and tiny industries utilising the local raw materials and satisfying local demand will also have to be given due importance. At the same time encouragement to the traditional skills and crafts, steps to promote technical and managerial skills as well as the provisions of adequate industrial credit, ensure flow of raw materials and arrangement for marketing of the products have also to be taken care of.

3. The State has witnessed a pronounced tendency for the rural population to migrate to the urban areas in search of employment. The

proportion of population dependent on agriculture and the contribution of agriculture to the State's domestic products have both shown a relative decline during the 6th and 7th Plan period. On the other hand with the spread of education, the number of school leaving children has shown very considerable increases and this human resource has to be trained, made fit for industrial employment and provided the necessary opportunities in the industrial sector.

4. With the above mentioned philosophy in regard to industrial development a number of small and medium units have been promoted in the State and in the past 3 years or so Sikkim has witnessed a very significant transformation in the industrial field. While the Sikkim Distilleries, the Sikkim Mining Corporation and a few other industrial units have been in operation for quite sometime, the following units have come into being during the latter part of 7th Plan period:

- (a) The Yoksom Breweries
- (b) Sikkim Vanaspati Limited
- (c) Bottling Plant
- (d) Paper Cartons
- (e) Pilfer Proof Caps
- (f) Heavy density poly ethylene plant (bags sheets etc.)
- (g) Cheese Plant

5. Apart from these, small units for the manufacture of cattle feeds, Television Assembly, G.I.Wire, Talcum Powder, silica chips, Ayurvedic medicine preparations, tin containers etc. have also been set up.

6. The most significant development no doubt is the establishment of an electronic unit in the State. This has been done on the basis of a collaboration arrangement worked out with M/s. Bharat Electronics Limited, Bangalore who provide the raw material support, technology transfer, training of manpower as well as marketing support. The unit is designed to manufacture 35 millions pieces of discrete semi conductors per annum. The unit was set

up in a recorded time, with the collaboration arrangement having been signed in May, 1987 and the unit commencing production in June, 1988. This type of industry is particularly suited to Sikkim which has a clean and dust free atmosphere, cool climate and the fact that the product can easily bear the transportation costs involved. This unit has been put up as part of the Sikkim Time Corporation, taking into account the fact that Sikkim Time Corporation has been an extremely successful venture having the highest productivity standards for watch assembly in the entire country. The managerial expertise developed in this plant and the fine work ethic that exists in this unit were taken full advantage of.

7. The other major development is the expansion of the Sikkim Jewels Limited with a view to increase the capacity to meet both domestic and international demand for industrial jewels particularly watch jewels and cup jewels for electric meters etc.

8. During the 7th Plan period the Government also carried out a review of some of the public undertakings and Govt. owned units with a view to bringing about a greater emphasis on operational efficiency and sound managerial practices. The continued reliance on Govt. and continuous losses were to be discouraged and the units made to obtain institutional finance as well, for the purpose of modernisation and expansion. On the basis of such a review the Govt. Fruit Preservation factory and the Sikkim Flour Mills have been leased out to private parties, so that instead of Govt. having to inject additional investment in these units Govt. starts generating a revenue and the entrepreneurial skills of the private entrepreneurs taken advantage of.

9. Mention may also be made of the completion of the Cold Storage Unit with a capacity of 2000 M.T. during the Plan period with an investment of approximately Rs. 70 lakhs.

10. This accelerated pace of industrialisation during the 7th Plan period has to a great extent been possible because of the active involvement and support of the Sikkim Industrial Development & Investment Corporation and that of the IDBI. The paid up capital of SIDICO is expected to increase from approximately Rs. 190 lakhs to a little over Rs. 700 lakhs

during the 7th Plan period. The IDBI is providing a matching contribution, as regard equity of this Corporation.

11. Considerable attention has also been paid during the plan period to motivate local entrepreneurs and upgrade and develop skills among artisans. During the period 552 entrepreneurs have been motivated through various entrepreneurial development programmes. In addition to this, in order to upgrade and develop skills among artisans 438 persons have been trained under the training for rural artisans, programmes. Further it is also anticipated that as many as 248 new industrial units would have been set up by the end of the Plan as against the target of 200 units. The figure includes self employment ventures. One more District Industries Centre was also established during the Plan period, at Gangtok to cater to the needs of East and North districts.

12. Keeping in mind the achievement during the 7th Plan period and the need for substantially increasing the rate of industrialisation in the State, the following broad strategy will be adopted during the 8th Plan:

(a) A substantial improvement in the build up of skills in the State by taking definite measures in the field of technical education, training of manpower and entrepreneurial development. The Govt. of Sikkim has decided to entrust technical education to the Department of Education and that department has formulated plans and programmes for establishing the required facilities. Entrepreneurial development will however continue to be the responsibility of the Industries Department.

(b) A rapid expansion of the electronic industries in Sikkim.

(c) Special effort to boost food processing industries.

(d) Specific measures to promote small and tiny industries with a collaboration arrangement involving the national Small Scale Industries Development Corporation.

(e) Increased involvement of private entrepreneurial capital by providing sufficient incentives for the flow of investment into the State.

(f) Take specific measures for the modernisation of the traditional industries such as carpet weaving, wood working etc. with a view

to improving their productivity, reduce costs, increase the volume of production and expanding marketing efforts, while at the same time preserving the original beauty and character of these crafts.

(g) Establish proper and adequate linkages between agricultural production, industrial growth, employment creation, flow of credit and marketing so that the benefits of industrial growth get reflected in the other sectors of economy.

13. With this back ground in mind the programmes and proposals for the 8th Plan are as follows:-

**(A) VILLAGE AND SMALL SCALE INDUSTRIES**

**(1) DIRECTION AND ADMINISTRATION**

**Eighth Plan: Rs. 7.5 lakhs**

**Annual Plan 1990-91: Rs. 1 lakh**

Under this programme it is proposed to strengthen the administrative frame work to improve the monitoring and promotion aspects of industrial growth. At the moment the mechanism for monitoring performance of various industrial units and in particular the public sector units is inadequate and a systematic performance appraisal of the various units is lacking. In view of these corrective measures whenever required are not always taken in time. To achieve this objective strengthening of the Directorate by providing suitable personnel will be necessary and for this purpose Rs.7.5 lakhs. is proposed under this head.

**(2) INCENTIVES TO NEW INDUSTRIES**

**Eighth Plan: Rs. 200 lakhs.**

**Annual Plan 1990-91 : Rs.30 lakhs**

In order to promote greater flow of industrial investment into the State, the State had formulated and promulgated a scheme of incentives which basically applied to the small industries and covered areas such as power subsidy, financing of feasibility studies etc. This package has however proved to be quite inadequate. The present package of incentives provides assistance only to small scale industries and the medium and large industries have not been able to avail of any of the State subsidies. Further, the scheme of Central Investment Subsidy has been disconti-

nued from 30th September, 1988. It has therefore been felt that there is the need for making the Incentives Policy more liberal for the tiny, cottage and small scale industries and also provide fiscal and financial incentives to the medium and large scale industries. The matter is under review and a comprehensive package is expected to be evolved at an early date.

Against the outlay of Rs.15.00 lakhs provided during the Seventh Plan period, an expenditure of Rs.12.50 lakhs is anticipated under the existing scheme till 31.3.1990.

For the Eighth Plan period, an amount of Rs.2 crores is proposed and an outlay of Rs.30 lakhs is proposed for the Annual Plan 1990-91.

**(3) DISTRICT INDUSTRIES CENTRE, JORETHANG (C.S.S.)**

**Eighth Plan: Rs. 40 lakhs,**

**Annual Plan 1990-91 : Rs. 7 lakhs**

This is a Centrally Sponsored Scheme. The District Industries Centre at Jorethang has been able to provide the required support to the artisans and tiny and small scale industrial units at the grassroot level in the South and West Districts. Under this Centre, various schemes like training to rural artisans, entrepreneurship development, information and publicity, marketing of products of artisans as well as cottage and tiny industries have been undertaken and will be continued in the 8th Plan period.

As against the provision of Rs.23.00 lakhs earmarked for the Seventh Plan, an amount of Rs.23.00 lakhs is anticipated to be utilised as on 31.3.1990.

For the Eighth Plan period, an outlay of Rs.40.00 lakhs is proposed and for the Annual Plan 1990-91, an amount of Rs.7.00 lakhs is proposed.

**(4) DISTRICT INDUSTRIES CENTRE, GANGTOK (C.S.S.)**

**Eighth Plan: Rs. 40 lakhs**

**Annual Plan 1990-91 : Rs. 7 lakhs**

This Centre was established at Gangtok during the year 1986. The Centre will continue to implement the schemes on training to rural artisans, information and publicity, entrepreneurship development, marketing of artisans and industrial products, etc.

During the Seventh Plan period, an outlay of Rs.25.00 lakhs was provided against which, the anticipated expenditure till 31.3.1990 is Rs.25.00 lakhs.

For the Eighth Plan period, an outlay of Rs.40.00 lakhs is proposed and for the annual Plan 1990-91, an outlay of Rs.7.00 lakhs is proposed.

**(5) INFORMATION & PUBLICITY:**

**Eighth Plan: Rs. 15 lakhs**

**Annual Plan 1990-91 : Rs. 3 lakhs**

Under this scheme, information on various policies and programmes is provided to the entrepreneurs as well as to the general public.

As against the outlay of Rs.10.00 lakhs for the Seventh Plan period, the anticipated expenditure under this scheme as on 31.3.1990 is Rs.7.50 lakhs.

For the Eighth Plan period, an outlay of Rs.15.00 lakhs is proposed for taking up similar programmes and for the year 1990-91, an outlay of Rs.3.00 lakhs is proposed. In addition expenditure involved in participation in Trade Fairs and exhibitions will also be met out of this Scheme.

**(6) INDUSTRIAL ESTATES/AREA/  
GROWTH CENTRES**

**Eight Plan: Rs. 60 lakhs,**

**Annual Plan 1990-91 : Rs. 10 lakhs**

The entire State of Sikkim consists of hilly terrain and non-availability of flat land for development of industrial area and growth centres has been a serious problem. During the 8th Plan period however, selected Growth Centres, at Manpur in the South District, Majhitar and Saramsha in the East District are planned to be taken up. The area in each Growth Centre to be developed will be to the extent of 20 acres each. It is proposed to develop these Growth Centres out of the plan fund as raising of institutional credit for development of such Growth Centres may not be economically viable in the light of various constraints which the industrial units located in a State like Sikkim have to confront.

During the 7th Plan period, an outlay of Rs. 60.00 lakhs was provided under this scheme and the anticipated expenditure under this scheme till 31.3.1990 is Rs. 44.75 lakhs. The expenditure related mainly to the esta-

blishment of the industrial estate at Jorethang and the acquisition of land for a new centre at Tadong.

**(7) KHADI & VILLAGE INDUSTRIES**

**Eighth Plan: Rs. 125 lakhs**

**Annual Plan 1990-91 Rs. 20 lakhs**

Under this scheme, various activities which are under the purview of the Khadi and Village Industries Commission are being implemented by the State Khadi and Village Industries Board. Major schemes relevant to the State are blacksmithy, hand made paper, cane and bamboo craft, apiary, gobar gas, etc. A Handmade paper unit with a capacity of 1 MT per month is under operation at Aho-Yangtam. More units of this nature are proposed to be established during the 8th Plan period so as to utilise the agricultural wastes and forest resources. Bee-keeping is another scheme which is planned to be taken up intensively so as to enable the rural population to earn additional income. Besides cotton, Khadi, Woollen Khadi being relevant to the conditions in the State, it has been planned to take up this scheme more vigorously. It is also proposed that the State Board should promote the spread of sericulture in the State.

As against the outlay of Rs.75.00 lakhs provided for the Seventh Plan period, the anticipated expenditure as on 31.3.1990 is Rs. 93.00 lakhs.

In order to meet the establishment cost of the Board and to take care of new programmes an outlay of Rs.125.00 lakhs is proposed for the 8th Plan period (1990-95) and for the Annual Plan, 1990-91 an amount of Rs.20.00 lakhs is proposed.

**(8) TRAINING - CUM - PRODUCTION  
CENTRE ON BAMBOO PRODUCTS**

**Eighth Plan: Rs. 50 lakhs**

**Annual Plan 1990-91 : Rs. 35 lakhs**

The State of Sikkim has been growing various types of cane and bamboo and during the 8th Plan period, it has been proposed to establish one Bamboo Processing Unit at Jorethang under the Department. The proposed

capital investment on plant, machineries and equipment is estimated at Rs.30.00 lakhs. The products proposed to be manufactured by the unit include resin bonded woven mats which can be used as partition boards for house construction, roofing, packaging boxes for fruits, vegetables as well as decorative and utility items. The products, especially the partition boards has also good scope for export. Since weaving the mat is a manual process, the project entails substantial employment generation. The workers are to be imparted required skills and the same is proposed to be provided through training programmes in the Centre. At a later stage, when sufficient number of workers are available, prospective entrepreneurs will be motivated and assisted to set up their own units in different parts of the State. The scheme is targetted to generate market for bamboo which is locally available and to encourage bamboo plantation in the hill slopes which can also help in the control of landslides and soil erosions.

Accordingly, an amount of Rs.50.00 lakhs is proposed for the 8th Plan period for this scheme. Out of Rs.50.00 lakhs, Rs.35.00 lakhs will be the capital component and Rs. 15.00 lakhs will be the revenue component for meeting the establishment costs and other recurring expenses particularly in regard to training of man-power. For the year 1990-91, as all the capital expenditure is to be incurred to set up the unit, Rs.35 lakhs is earmarked.

**(9) PROCESSING OF AROMATIC AND MEDICINAL PLANTS**

**Eighth Plan: Rs. 25 lakhs**

**Annual Plan 1990-91: Rs. 5 lakhs**

The State of Sikkim has got a wide variety of flora and has also a large number of medicinal plants and herbs. With a view to utilise the available herbal resource for the medical and aromatic products, a study was conducted by the Department through the Regional Research Laboratory, Jammu. As per this report ample scope for utilisation of the resources of certain medicinal and aromatic plants and also for cultivation of such herbal materials and its processing exists in the State. Like any other cash crop, cultivation of medicinal and aromatic plants will help the farmers in getting better returns out of their holdings.

Accordingly, during the 8th Plan period, it has been proposed to establish processing facilities for selected medicinal and aromatic herbs. A close coordination will be maintained with the Agriculture and Forests Departments so that cultivation and collection of the materials from the forest areas will be possible. Further to this, in order to create ready market for the semi processed/final products in the form of drugs and aromatics, efforts will be made to establish technical and marketing tie-up with reputed firms like Dabur (India) Limited, Ranboxy Laboratories, etc. The Department has already taken up the matter with Dabur (India) Limited and the matter is being pursued.

In the light of the above, in order to pursue this scheme during the 8th Plan, a provision of Rs.25.00 lakhs is proposed for the Eighth Plan period and for the Annual Plan 1990-91, a provision of Rs.5.00 lakhs is earmarked.

**(10) SELF-EMPLOYMENT TO EDUCATED UNEMPLOYED YOUTH SCHEME**

**Eighth Plan: Rs. 40 lakhs**

**Annual Plan 1990-91 : Rs 5 lakhs**

This is a continuing scheme under the Central Sector to be financed through the Nationalised Banks. During the Seventh Plan period, the anticipated number of cases under this scheme is 178 and credit amounting to Rs.40.00 lakhs is anticipated to be disbursed to the beneficiaries under the scheme.

As unemployment amongst the educated youth in the State is on the increase, this Scheme if extended by the Central Government for a further period, will be of immense help.

**(11) DIRECTORATE OF HANDICRAFTS & HANDLOOMS :**

**Eighth Plan: Rs. 310 lakhs**

**Annual Plan 1990-91 : Rs. 52 lakhs**

The Government Institute of Cottage Industries has been functioning for over three decades in Sikkim with the basic objectives of imparting employment oriented training and preserving and promoting the age old arts and crafts of Sikkim. In 1987, this institute was converted into the Directorate of Handicrafts and Handlooms with a view to see that

concerted measures are taken to expand the activities in this area. The crucial importance of this sector need hardly be underlined as the major agency for providing the package of services, training of manpower and marketing of products which reflect the fine cultural traditions of the State.

At the moment the training and production functions are combined together and while training is imparted in traditional arts, carpet weaving, wood working etc. the marketing aspect has not been given due attention. No doubt the Directorate provides the services of not only training but also enabling those who have completed the training programme to become self employed by providing raw material, looms as well as marketing of their products. So far more than 600 trainees have been imparted skills and centres have been established even in the remote areas such as Lachen, Lachung, Chungthang, Pelling, Kewzing, Lingdong and Okhrey. It has however become evident that the training part of the effort should be considered vocational education and specific and separate efforts are called for producing quality goods for the market so that the State as a whole becomes self sufficient in terms of higher revenue and higher output. During the Eighth Plan this aspect will be paid specific attention to.

The technology adopted both in regard to carpet making and wood working has not been modernised for a very long time. Old and traditional methods are still being employed for carpet weaving, Lepcha weaving and for making traditional furniture. The need for modernisation exists as regards the looms themselves, the methods of dyeing, improvement in designs, improvement in scissoring as also employment of modern machines for the Wood Working area so that there is substantial improvement in productivity and quality standards. Proper marketing channels also need to be established. These requirements are reflected in the following proposals :-

#### I. DIRECTION AND ADMINISTRATION

**Eighth Plan : Rs. 10 lakhs**

**Annual Plan : 1990-91 : Rs. 1.50 lakhs**

With the projected expansion in the activities there is need for strengthening the

accounting set up in the Head Office with a provision of Accounts Officers and Junior Accountant. An outlay of Rs. 10 lakhs for the Eighth Plan period would be required for this purpose, out of which Rs. 1.50 lakhs is proposed for the 1990-91 Annual Plan.

#### II. TRAINING PROGRAMME

**Eighth Plan : Rs. 210 lakhs**

**Annual Plan : 1990-91 : Rs. 35 lakhs**

- (a) Training is being imparted in the following trades :-
- i) Composite Traditional Arts including thanka painting, moulding and wood carving for a duration of 5 years with a capacity of 30 trainees.
  - ii) Lepcha weaving with a duration of two years and a capacity of 30 trainees.
  - iii) Carpet weaving with a duration of two years and a capacity of 30 trainees.
  - iv) Multicrafts such as embroidery, knitting etc. with a duration of two years and a capacity of 30 trainees.
- (b) At the moment 330 trainees undergo training in Gangtok itself. At the moment, there are seven branch centres of the Directorate imparting training in various trades at Lachen, Lachung, Chungthang, Pelling, Kewzing, Lingdong and Okhrey. It is proposed to open five more centres at Namchi, Rhenock, Soreng, Jorethang and Central Pendam. Provisions of instructors and supervisors will have to be made for these new centres while continuing the old centres. For the programme at Gangtok and the existing Centres a provision of Rs. 145 lakhs will be required. For the five new centres a provision of Rs. 65 lakhs will be required. In the 1990-91 Annual Plan Rs. 35 lakhs has been proposed under this scheme.

#### III. PRODUCTION PROGRAMMES

**Eighth Plan : Rs. 15 lakhs**

**Annual Plan : 1990-91 : Rs. 3 lakhs**

As mentioned above, it is proposed to bring about considerable upgradation of technology in the departments of weaving, carpet making, dying, etc. Chemical dyes will be



increasingly employed and is proposed to provide facilities for washing of carpets as also introduction of high quality wool yarn. Modification of designs, introduction of circular type looms as also modernisation of the wood working technology by installing an automatic replication machine is contemplated. It is envisaged that 200 new looms will be introduced at an approximate cost of Rs. 2,000 per loom. The automatic wood replicator machines will cost approximately Rs. 5 lakhs. For this programme of modernisation Rs. 15 lakhs is proposed. Efforts will also be made to train the instructors on modern looms by deputing them to carpet weaving centres elsewhere in the country. The outlay proposed for 1990-91 Annual Plan is Rs. 3 lakhs.

#### IV. RESEARCH DESIGN AND PRODUCT DEVELOPMENT

**Eighth Plan: Rs. 10 lakhs**

**Annual Plan 1990-91 : Rs. 2 lakhs**

It has been felt that production cum research and development centre should be established so that the new designs are developed to cater to the changing justification of customers. Experimentation in terms of uses of dyes, modernisation of looms etc. will be carried out and for this purpose suitable personnel will have to be employed. A provision of Rs. 10 lakhs will be required of which Rs. 2 lakhs is proposed for the year 1990-91.

#### V. MARKETING

**Eighth Plan: Rs. 10 lakhs**

**Annual Plan 1990-91 : Rs. 2 lakhs**

It is proposed to take advantage of private marketing channels to the maximum extent possible. However the existing sales emporiums at Gangtok and New Delhi will have to be continued and the facilities expanded. A provision of Rs. 10 lakhs is proposed for this purpose of which Rs. 2 lakhs is proposed for the Annual Plan 1990-91.

#### VI. FIELD LEVEL ORGANISATION

**Eighth Plan: Rs. 50 lakhs,**

**Annual Plan 1990-91 : Rs. 7.50 lakhs**

The main function of the Field Level Organisation is to take care of ex-trainees spread all over the State by providing them with looms, raw materials etc. so that they can carry on their work and produce marketable products.

Further marketing of the production will also be taken care of by the Field Level Organisation Centres functioning at Najitam, Hee Sudur, Phodong, Pelling and Pellong and this will be continued during the Eighth Plan. An outlay of Rs. 50 lakhs is proposed for this organisation of which Rs. 7.50 lakhs is for the Annual Plan 1990-91.

#### VII. HANDMADE PAPER UNIT

**Eighth Plan: Rs. 5 lakhs**

**Annual Plan 1990-91 : Rs. 1 lakh**

This has been a very useful unit for the purpose of converting waste into paper products which have a ready market. The wing is to be expanded so that a larger number of trainees can be inducted and for this purpose a provision of Rs. 5 lakhs is proposed in the Eighth Plan. The outlay proposed for 1990-91. Annual Plan is Rs. 1 lakh.

#### (B) MEDIUM INDUSTRIES

##### (1) INDUSTRIAL SURVEY & REPORTS

**Eighth Plan: Rs. 10 lakhs,**

**Annual Plan 1990-91 : Rs. 2 lakhs**

Under this scheme during the Seventh Plan period, a number of studies on the viability of variety of Industries and their prospects in Sikkim have been undertaken and a number of reports prepared. Besides such studies, the services of West Bengal Consultancy Organisation Limited has also been availed of which has immensely helped in providing the required consultancy services to the prospective entrepreneurs in the State. As against the approved outlay of Rs. 5.00 lakhs, the anticipated expenditure as on 31.3.1990 is Rs. 4.00 lakhs for the Seventh Plan period.

During the Eighth Plan period, the activities under this Scheme is expected to be intensified and accordingly, a provision of Rs. 10.00 lakhs is earmarked. For the Annual Plan 1990-91, a sum of Rs. 2.00 lakhs is proposed.

(2) **SIKKIM INDUSTRIAL DEVELOPMENT & INVESTMENT CORPORATION LIMITED**

**Eighth Plan: Rs. 1000 lakhs**  
**Annual Plan 1990-91 : Rs. 170 lakhs**

The Corporation was established in the year 1977 and it is discharging the dual function of a State Industrial Development Corporation and that of a State Financial Corporation. The Corporation has already financed a variety of industries. As on 31.3.1989, the Corporation has financed 669 cases and an amount of Rs.16.20 crores sanctioned as term loan. The Corporation has been the main instrument in the development of industries in the State. The paid up capital as on 31.3.1989 of the Corporation stands at Rs.538.60 lakhs and by the end of the Seventh Plan period, the anticipated paid-up equity of the Corporation will be Rs.709.6 lakhs. In addition to providing term loans to industrial units and hotel projects in the State, the Corporation has also participated in the equity of the joint sector projects and subscribed an amount of Rs.137.62 lakhs as its equity in those Companies as on 31.3.1989.

Keeping in mind the need to accelerate industrial growth in the State, and the absence of venture capital from private entrepreneurs, SIDICO will need to play an even larger role during the 8th Plan and its capital base will therefore, have to be considerably strengthened. Accordingly, an outlay of Rs. 10.00 crores has been proposed as investment in SIDICO for the 8th Plan period and for the year 1990-91, an amount of Rs.1.70 crores is earmarked.

(3) **SIKKIM TIME CORPORATION LIMITED**

**Eighth Plan: Rs. 600 lakhs**  
**Annual Plan 1990-91 : Rs. 200 lakhs**

As mentioned earlier Sikkim Time Corporation which was established in 1977 with a collaboration arrangement with M/s. Bharat Electronics Limited, Bangalore for the purpose of assembling watches and over the years acquired an excellent reputation for excellence in performance. With an investment of Rs.55 lakhs, the revenue per year is almost Rs.50

lakhs. The unit has been making profits continuously for the past 10 years. Recently, it has expanded into the manufacture of watch crowns and the number of watches assembled has also been continuously increasing. The productivity standard attained by this unit is rated as highest among all HMT units in the entire country. With such an excellent record it was but appropriate to consider diversion into new areas particularly with higher technology. Taking into account the emphasis on "clean" industries and high value low volume products, it was decided to branch into electronics and the unit for the manufacture of discrete semi conductors was established with a collaboration arrangement with M/s. Bharat Electronics Limited, Bangalore. M/s. BEL have provided the technology, raw material support training of manpower and marketing support. The electronic unit was established in record time, the arrangement with M/s. BEL having concluded in May, 1987 and full production commencing in June, 1988. Already during the period of operation the unit has been able to produce very encouraging results and is expected that during the second year of operation full capacity utilisation will be attained and the yield standard bettered. With this performance and the gradual built up managerial expertise, it has been felt that further expansion in the area of electronics could be attempted and discussions have been held with M/s. BEL in order to determine the areas where expansion can take place.

The demand for discrete semi conductors in the country is expected to go up very substantially and in the 8th Plan the demand can be as much as 7 million pieces. The capacity within the country is approximately 300 million pieces. BEL themselves have gone in for expansion in this area and therefore, developing of the capacity in Sikkim is a very worth while proposition. Accordingly, it is proposed to step up the capacity to 17 million pieces and for this purpose a project report has been prepared. The investment required will be approximately Rs.3 crores.

The second area of action is manufacture of power devices, where the technology involved and the skill required are more or less the same order as that for discrete semi conductors. The investment for establishing a capacity of approximately 10 million pieces would be of the order of Rs.2 crores.

The two other products namely - the electronic gun and integrated circuits have also been identified as possible areas of action. The details are yet to be finalised but the projects can be taken up only after the second half of the 8th Plan. Hybrid micro circuits will also be considered at the later stage. The quantum of investment required is yet to be determined but it will be appropriate to make a small provision in the 8th Plan.

A total of Rs.600 lakhs is proposed therefore, as investment in the SITCO and further requirements of funds for the above projects will be raised as loan from the institutions.

#### **(4) SIKKIM FLOUR MILLS LIMITED**

**Eighth Plan : Rs. 10 lakhs**

**Annual Plan 1990-91 : Rs. 2 lakhs**

During the Seventh Plan period, the expansion of the capacity of the Flour Milling Unit thereby raising the capacity from 30 metric tonnes per day to 50 metric tonnes per day was undertaken. Besides the expansion of the Flour Milling Unit, a Cold Storage Unit has been established at Majhitar with an investment of Rs.70.00 lakhs. The Extruder Food Processing Unit has been catering to the requirement of nutritious food items under the Nutrition Programme of the State. With a view to bring about the much needed improvement in the management and also to ensure reasonable returns on the investment made, the Flour Milling Unit of the Company has been leased out.

The state Government has subscribed an amount of Rs. 126.00 lakhs as on 31.3.1989 as equity in the Company for undertaking the three projects. Besides the equity from the State Government, the Company has also availed of institutional finance amounting to Rs. 28.50 lakhs for completion of the projects.

As the Extruder Food Processing Unit has sufficient scope for diversification into other food items and also the modernisation programme being necessary, it is proposed to undertake the diversification-cum-modernisation programme of the Extruder Food Processing Unit during the Eighth Plan period.

For the Seventh Plan period, an amount of Rs. 30 lakhs was provided and the anticipated expenditure as on 31.3.1990 is Rs. 30.00 lakhs.

For the Eighth Plan period, an amount of Rs. 10 lakhs is proposed and for the Annual Plan 1990-91, an amount of Rs. 2.00 lakhs is proposed.

#### **(5) COLD STORAGE**

**Eighth Plan : Rs. 5 lakhs**

**Annual Plan 1990-91 : Rs. 2 lakhs**

The project with a capacity of 2,000 MT has been commissioned by the Sikkim Flour Mills Limited. With the establishment of the project, the required facility for preserving and storage of perishable local produces like potatoes, ginger, orange, eggs, etc. have been created. However, in view of various constraints, the installed capacity of the unit could not be utilised and consequently, the unit is finding it difficult to service the term loan amounting to Rs. 28.50 lakhs availed of by it from the Sikkim Industrial Development & Investment Corporation Limited.

As such, during the 8th Plan period, it has been proposed to subsidise the interest on the term loan and working capital and also meet the overhead expenses by the Government. Accordingly, a provision of Rs. 5 lakhs is earmarked for the 8th Plan and for the Annual Plan 1990-91, an amount of Rs. 2.00 lakhs is proposed.

#### **(6) TEA DEVELOPMENT**

**Eighth Plan : Rs. 50 lakhs,**

**Annual Plan 1990-91 : Rs. 10 lakhs**

At the moment Sikkim has approximately 400 acres of land under tea and the quality of tea produced has earned an excellent reputation not only in the Calcutta Auctions but also in markets abroad. In fact in the Federal Republic of Germany "Temi tea" is so well known for its fine quality that it is estimated that the price at which Temi tea is sold in the Federal Republic of Germany is of the order of Rs.600/- per kilogram as compared to the average price of Rs. 150/- per kilogram in Calcutta Auction. Further the quantity of Temi Tea sold and consumed is reported to be twice the actual production in Sikkim which only means that a good deal of other teas are being blended and sold as Temi tea.

There are more than enough reasons therefore, for expanding the area under tea cultivation and also making a determined attempt to sell the tea in packets so that the unit value realisation is more and the benefits of packaging and blending is available to the actual producers. To take care of expansion in the area under tea, improving the facilities in the tea factory particularly as regards the withering troughs as well as to put up an automatic packaging plant, a provision of Rs. 50 lakhs as investment in the garden is proposed.

#### (7) VEGETABLE OIL EXTRACTION PLANT

**Eighth Plan: Rs. 150 lakhs**

**Annual Plan 1990-91 : Rs. 40 lakhs**

During the 7th Plan period, a Vanaspati Plant with a capacity of 50 TPD has already been established. Severe bottlenecks have been witnessed in procuring the feed stock for this plant. It is considered necessary to encourage production of oil seed amongst the local farmers in the State during the Eighth Plan period, and also create necessary processing facilities in the State. Encouragement for production of oil seeds in the State is expected not only to support the existing Vanaspati Unit, but also create an alternative avenue for the farmers in getting remunerative returns as compared to the traditional crops like paddy, maize, millet, etc.

Accordingly, a Techno-economic Feasibility Report on the cultivation of Sunflower and Vegetable Oil Extraction Plant has already been prepared. The Report indicates that a plant with a capacity of 80 TPD for processing of oil cakes and 60 TPD of soyabean and rice bran is technically feasible and economically viable. The total investment for setting up the unit is estimated at Rs. 5.00 crores.

Accordingly, during the 8th Plan period, a provision of Rs. 1.50 crores has been earmarked and the balance amount will be arranged by the promoters as their equity and through institutional finance. The above provision proposed for the Eighth Plan period will be invested by the State Government as its equity. For the Annual Plan 1990-91, an amount of Rs. 40.00 lakhs is proposed. This facility it is expected will be part of the Vanaspati Plant.

#### (8) GINGER PROCESSING PLANT

**Eighth Plan: Rs. 50 lakhs**

**Annual Plan 1990-91:- Rs. 15 lakhs**

Ginger is one of the main cash crops of the State. It is estimated that at present, the State is producing about 15,000 Mts of ginger. In the absence of processing facilities in the State, the ginger is being marketed through the local traders in places like Delhi and Calcutta on wholesale basis. The wholesale price of ginger during the last year varied anywhere between Rs. 3000/- to Rs. 6,000/- per tonne during the harvesting and lean periods respectively. The procurement price of ginger available to the grower it is estimated is only 30 percent of the wholesale prices.

In view of the hilly terrain and climatic conditions, the State has a vast scope for increasing production of ginger and as such, in order to encourage the farmers and also to stabilise the market for ginger, it has been proposed to establish a Ginger Processing Plant during the Eighth Plan period. Depending upon the market demand various products like dry ginger, oleo-resin, ginger ale, ginger pickles, ginger-in-brine etc. are proposed to be manufactured. The products of the unit will be marketed both within the country and abroad. It is understood that products like ginger-in-brine, ginger pickles have substantial demand in countries like Japan. Action for exploring the possibility of export of ginger products has already been initiated through Agricultural Products Export Development Authority.

It is estimated that a capital investment to the tune of Rs. 1.00 crore will be required to set up the plant. A project report on this has been prepared. It is felt that private investment can be attracted for such a venture and total investment can be approximately 50 percent.

Accordingly, for the Eighth Plan period, an amount of Rs. 50 lakhs has been proposed for this project and for the Annual Plan 1990-91, an amount of Rs. 15.00 lakhs is proposed.

9. **SIKKIM JEWELS LIMITED :****Eighth Plan: Rs. 100 lakhs****Annual Plan 1990-91 :Rs. 100 lakhs**

The Sikkim Jewels Limited has been manufacturing a variety of watch jewels and cup jewels from 1975 onwards. The present production capacity is 1.2 million pieces per year. Negotiations have been held with a Swiss Company manufacturing similar items with a view to exploring the possibility of obtaining modern high speed precision machines with much higher productivity so that there can be a substantial step up in the production of these products. Sikkim Jewels is one of the four units in the entire country manufacturing these items and the internal demand is much higher than the present capacity in the country. Further there is also a substantial export demand which can be satisfied if

the production capacity is increased. In the negotiations with the Swiss company the question of exports has been considered and it has been agreed that 30 percent of the production will be exported. Keeping all these considerations in mind a project with an investment of Rs. 7.21 crores has been formulated. The viability of this project has been examined by the IDBI who have agreed to sanction a loan of Rs. 3.5 crores. Internal generation of funds and share capital contribution by private investors will generate approximately Rs. 20 crores. M/s. Sikkim Industrial Development and Investment Corporation will be contributing around Rs. 1 crore as loan. It is proposed that in order to fill the remaining gap Government should contribute Rs. 1 crore as additional share capital to Sikkim Jewels as part of the Eighth Plan. Since the project will be taken up during 1989-90 and will be completed during 1990-91 the entire Rs. 1 crore will have to be provided for in the 1990-91 plan itself.

## DRAFT EIGHTH FIVE YEAR PLAN ( 1990-95 ) AND ANNUAL PLAN - 1990 - 91

## HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE

Statement GN - 2

## DEPARTMENT : INDUSTRIES

( Rs. in lakhs )

Code No.	Name of the Scheme/Project	Seventh Plan Outlay (1985-90)	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which capital content	Annual Plan 1990-91 proposed Outlay	Of which capital content
1	2	3	4	5	6	7	8	9
106000000 VI. INDUSTRY & MINERALS								
106285100 Village & Small Industries								
001	Direction & Admn.	7.00	3.60	2.00	7.50	—	1.00	—
101	Industrial Estate	60.00	36.75	8.00	60.00	60.00	10.00	10.00
102	Small Scale Industry	73.00	41.00	27.00	295.00	—	47.00	—
104	Training cum-production centre on Bamboo Products	—	—	—	50.00	35.00	35.00	35.00
105	Khadi & Village Board	75.00	73.00	20.00	125.00	—	20.00	—
110	Composit Village & Small Industries & Cooperatives	10.00	5.22	—	—	—	—	—
111	Employment scheme for Unemployed Educated youths	—	—	—	40.00	—	5.00	—
200	Other Village Industries	100.00	131.60	43.80	335.00	—	57.00	—
(i)	Directorate of Handicraft and Handloom	100.00	131.60	43.80	310.00	—	52.00	—
(ii)	Processing of Aromatic & Medicinal Plants	—	—	—	25.00	—	5.00	—
Total		325.00	291.17	100.80	912.50	95.00	175.00	45.00
106285200 MEDIUM INDUSTRIES								
80 General								
190 Investment in Public Sector and other undertakings ( SIDICO )								
		60.00	68.00	90.00	1000.00	1000.00	170.00	170.00
800 Other Expenditure (Industrial Survey & Reports )								
		5.00	2.00	2.00	10.00	—	2.00	—
05 Chemical & Pharmaceutical Industries								
205 Chemical and Pesticides ( Phyto-chemical corpn. )								
		10.00	10.00	—	—	—	—	—

## DRAFT EIGHTH FIVE YEAR PLAN ( 1990-95 ) AND ANNUAL PLAN - 1990 - 91

## HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE

Statement GN - 2

## DEPARTMENT : INDUSTRIES

( Rs. in lakhs )

Code No.	Name of the Scheme/ Project	Seventh Plan Outlay (1985-90)	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which capital content	Annual Plan 1990-91 Proposed Outlay	Of which capital content
1	2	3	4	5	6	7	8	9
07	Telecommunication & Electronic Industries							
190	Investment in Public sector & other undertakings ( SITCO )	40.00	142.00	20.00	600.00	600.00	200.00	200.00
08	Consumer Industries							
600	Others							
	i) Sikkim Flour Mills	30.00	28.50	1.50	10.00	—	2.00	—
	ii) Govt. Fruit Preservation Factory	80.00	80.00	—	—	—	—	—
	iii) Cold Storage	—	3.00	2.00	5.00	—	2.00	—
	iv) Fruit Preservation & Vegetable Canning Unit at Rohtak	10.00	10.00	—	—	—	—	—
	v) Temi-Tea Estate	135.00	99.50	35.50	50.00	50.00	10.00	10.00
	vi) Vegetable Oil Extraction Plant	—	—	—	150.00	150.00	40.00	40.00
	vii) Ginger Processing Plant	—	—	—	50.00	50.00	15.00	15.00
	viii) Sikkim Jewels Ltd.	—	—	—	100.00	100.00	100.00	100.00
	Total (Medium Inds.)	370.00	443.00	151.00	1975.00	1950.00	541.00	535.00
	Total Industries	695.00	734.17	251.00	2887.50	2045.00	716.00	580.00

## Mines & Geology

1. The Department of Mines and Geology established in 1976 has been responsible for the exploration and establishment of the mineral resources, with the objective of developing commercially exploitable mineral resources. The mineral exploration is being taken up by the department with these considerations in mind and giving due importance to the need to preserve the ecological balance of the area.

2. In the Vth Plan period, the Department which was still in its infancy took up the preliminary investigation of Tungsten, Graphite and Dolomite which had been identified. The investigation were mainly to establish the quality of the minerals and the extent of deposits available.

3. In the VIth Plan period a State Geological Programming Board was set up with members drawn from the Geological Survey of India, Mineral Exploration Corporation, Central Water Commission and some of the technical Departments of the State Government like Power, Public Works Department, Irrigation etc. It was with the setting up of the State Geological Programming Board, that approved programmes of geological exploration were initiated, and some of the investigations were completed.

### (a) DOLOMITE

Extensive deposits of Dolomite have been found in the Rangit river valley in South and West Sikkim, which are of a very good grade that could be utilized in the steel plants. However, as the mineral is of low value and transportations costs are involved, commercial exploitation has not taken place. Added to this is the fear of ecological disturbance in the area.

### (b) MINERAL WATER THERMAL SPRINGS

A detailed study of the known thermal springs was conducted to study the feasibility of bottling Mineral water. Samples of the water were collected and sent to the National Environmental Engineering Research institute, Nagpur. The analysis of the samples indicated that because of the presence of Fluorine and Sulphur, the water was not fit for human consumption.

### (c) COAL

The investigation to establish the presence of high grade coal has been continuing for quite sometime. A number of exposed coal deposits have been found in the Rangit river valley of South and West Sikkim and in Namchi (South Sikkim), where systematic studies and sampling have been taken up. The studies conducted so far indicate the presence of coal, rich in fixed carbon, but the high ash content and low volatile character make the coal unfit for ignition and sustaining fire. Further investigation and sampling studies are going on.

(d) In addition, preliminary investigation have been conducted to see the occurrences of quartzite, crystalline, limestone/marble and graphites. As per the investigations carried out so far quartzite has been found at Mangsari in West Sikkim which has proved to be of quite a high grade and samples have also been obtained from Manpur (South Sikkim) and parts of East Sikkim which are still being analysed and extent of deposits are also under investigation. Occurances of marble deposits have been found in Chungthang (North Sikkim) which are still under investigation and samples are being analysed.

4. In the VIIIth Plan period the department has been continuing with its efforts in regard to the establishment of mineral resources in the State. Some of the results obtained from the investigations have been quite encouraging.

### (a) QUARTZITE

Quartzite occurrences were found in East and West Sikkim in areas like Mangsari where the ore was found to be of a very high grade. At present a mining lease has been given to one of the local firms which has taken up mining of this mineral.

### (b) GRAPHITE

Initial investigation had indicated large deposits of Graphite in West Sikkim. Samples were obtained and sent to RRL, Bhubaneswar, for verification. The report which has been received indicate that the ore is of a very low grade and could only be used in foundry facings and manufacture of paints due to its low carbon content.



**(c) LIME STONE**

Preliminary investigation and mapping of limestone deposits in Mangalbarey, Rishi, Namgaon section in West Sikkim has been carried out and samples have been obtained which are presently being analysed.

**(d) SILLIMINITE**

Geological investigations have been conducted to find out the deposit of silliminite at Rothak Khola. Samples have been collected and are being analysed.

**(e) TALC**

Preliminary exploration in different areas have been carried out and some deposit of Talc have been found in Mangsari (West Sikkim). A mineral lease have been given to a local firm for its exploration.

5. In addition to the establishment of mineral resources in the State the Department of Mining and Geology have also started work on engineering geology whereby areas which were hitherto effected by landslides are being surveyed and remedial measures are being recommended to the concerned departments for taking further action in the matter. The department had carried out a study of the Western Bye-Pass area in Gangtok and the concerned authorities are taking up protective works to safeguard the area from landslides.

**6. PREPARATION OF LANDSLIDE ZONE MAPS**

The Department has requested the Geological Survey of India to prepare a map of Sikkim, indicating the landslide areas on a zonal basis, which could be used to study the landslides and the preventive measures that could be adopted. The maps when prepared would be updated by the Department regularly.

**7. ROCK CUTTING AND POLISHING**

A pilot project has been taken up by the Department at Rangpo to study the commercial viability of local cut and polished rocks. Under this project different types of local rocks would be cut and polished and their commercial value evaluated.

**8. LABORATORY**

The Departmental laboratory is being improved and updated. A microbiology wing has been added and now different samples of water that have been collected is being analysed to check the presence of minerals in the water.

9. In the VIIIth Plan period the Department would continue with its programme of establishing the mineral resources of the State with the aim and objective of encouraging commercial exploitation of the minerals keeping in mind the need to preserve the environment and the ecological balance. Some of the important minerals that have been detected are Quartzite in East and South Sikkim, Sillimanite in Rothak (West Sikkim), limestone in Mangalbarey and Reshi in West Sikkim, and Talc in many parts of West and South Sikkim. In the VIIIth Plan period a detailed investigation will be taken up in the case of each of these minerals which would involve mapping of sites, trenching and drilling and analysis of samples to find out the quality of ore available and the extent of deposits that can be mined.

**MAPPING OF LANDSLIDE PRONE ZONES**

The Geological Survey of India is preparing maps of the State indicating the landslide areas on a zonal basis. The Department now proposes to update the maps with the help of aerial photography, Satellite imageries and field study. The main purpose of preparing landslide maps is to identify the potential area of landslide, its causes and suggest remedial measures to check them.

**STUDIES OF BED ROCKS OF TOWNSHIPS**

The increase in the number of high rise buildings in Gangtok, Jorethang, Namchi, Gyalshing and the other urban centres have lead to fear of the possibility of any of these areas being damaged in the event of an earthquake. The Department now proposes to undertake studies of the bed rocks and underground structures of the major towns with the help of the diamond core drill available with the Department so that the town planners can recommend construction of patterns in such areas as per the findings.

## GEOMORPHOLOGICAL STUDIES AND PREPARATION OF LAND USE MAPS

Geomorphology studies of an area, gives us information about weathering of soil, landslides and other natural phenomenon. These are some of the common problems being faced by the State because of its rugged topography, high mountains and deep gorges. Geomorphological and slope stability studies are proposed to be taken up which could be used by the Agriculture, Forest and Land Use Departments.

## ANALYTICAL/MICROBIOLOGICAL STUDIES OF WATER OF SIKKIM

The Departmental laboratory has a section that has been set up to study and analyse different samples of water obtained from all over the State. The analysis would be to check the mineral content and the microbiological aspects of the water. These studies would be continued in the VIIIth Plan period.

## ROCK CUTTING AND POLISHING

The pilot project set up at Rangpo for cutting and polishing locally available rocks is expected to be completed in the early VIIIth plan period. On its completion, the Unit will start cutting and polishing rocks which could be used for the beautification of houses and public places. The programmes to be taken up in the VIIIth Plan are as follows :-

### 10. DIRECTION AND ADMINISTRATION

**Eighth Plan: Rs. 40 lakhs**  
**Annual Plan 1990-91 : Rs. 5.50 lakhs**

The Department has proposed a sum of Rs. 10.00 lakhs for the creation of some new posts of Drillers, Rigmen, lab. attendant, field assistant etc. who would be required in view of the number of projects proposed to be taken up. A sum of Rs. 15.00 lakhs has been proposed to meet the expenditure arising out of Travel expenses, Office expenses and Rent/Rate/taxes for the VIIIth plan period. A further sum of Rs. 15.00 lakhs has been proposed for new equipment, and accessories that would be required for taking up the field studies and for conducting sample analysis in the laboratory.

### 11. MINERAL EXPLORATION

**Eighth Plan: Rs. 55 lakhs**  
**Annual Plan 1990-91 : Rs. 8 lakhs**

The continuation of mineral exploration has been one of the priority items of the Department since its inception. A sum of Rs. 55.00 lakhs has been proposed to complete some of the on going projects and to take up some new mineral explorations in the VIIIth Plan period.

### 12. RESEARCH AND DEVELOPMENT

**Eighth Plan Rs. 5 lakhs**  
**Annual Plan 1990-91 : Rs. 1 lakh**

In view of the necessity of extending the laboratory facilities a sum of Rs. 5.00 lakhs has been kept for this in the VIIIth Plan period.

### 13. ASSISTANCE TO PUBLIC SECTOR UNDERTAKING

**Eighth Plan: Rs. 75 lakhs**  
**Annual Plan 1990-91: Nil**

The Sikkim Mining Corporation is the only joint sector undertaking of the Govt. of India and the Govt. of Sikkim in the State, involved in the production of low grade poly-metallic ores comprising of copper, lead and zinc. In a recent review held by a committee constituted by the Govt. of India and the Govt. of Sikkim it was recommended that the capital should be restructured to ensure an equitable contribution from both parties. As per the recommendation of the committee the Govt. of India would contribute Rs. 154.57 lakhs over a period of five years with a major share of Rs. 152.63 lakhs being invested in the first three years till 1991-92. During this period the Govt. of Sikkim would not have to contribute anything. The Govt. of Sikkim's contribution would be from 1992-93 onwards. A provision of Rs. 75.00 lakhs is being kept to provide for investment in equipment of the Sikkim Mining Corporation plant and machineries. This would be particularly important as by that stage the exploratory drilling of the nearby areas to determine the ore incidence and metal content would have been completed and decisions regarding exploitation will be taken with concomitant requirement of plant and machinery.

## DRAFT EIGHTH FIVE YEAR PLAN ( 1990-95 ) AND ANNUAL PLAN - 1990 - 91

## HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE

DEPARTMENT : MINES &amp; GEOLOGY

STATEMENT GN - 2

( Rs. in lakhs )

Code No.	Name of the Schemes/ Projects	Seventh Plan Outlay 1985-90	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	of which capital content	Annual Plan 1990-91 proposed outlay	Of which capital content
1.	2.	3.	4.	5.	6.	7.	8.	9.
106285302	MINING							
02	Regulation & Development of Mines							
001	Direction & Adm.	47.50	38.40	9.50	37.00	—	5.00	—
003	Training	—	—	—	3.00	—	0.50	—
004	Research & Development	4.00	5.95	1.00	5.00	5.00	1.00	1.00
102	Mineral Exploration	38.50	15.80	7.50	55.00	—	8.00	—
190	Assistance to public Sector & other undertaking	60.00	46.10	—	75.00	75.00	—	—
	Total	150.00	106.25	18.00	175.00	80.00	14.50	1.00

## Roads & Bridges

**1. Importance of Road Network:** The State of Sikkim depends entirely upon the road transportation system for the movement of goods from one place to another within or outside the State. In case of passengers, only a negligible fraction of total passenger traffic borne by the road network is shared by the lone helicopter service, which, weather permitting, makes one flight to Bagdogra and back in a day. The question of establishing an air-link or even building a rail line has been ruled out for all practical purposes due to fundamental doubts about their economic viability. Therefore, the road network will have to serve as the sole medium of transportation for the State for quite sometime to come.

**2. Brief History of Road Network:** At the time when the first Seven Year Plan was launched well before Sikkim became part of India, there were only 39 km of rough road from Rangpo to Gangtok and a few kilometres of road around the Capital. What are now District Headquarters and a few other important towns were connected by tracks with the Capital. Apart from these, there were some mule tracks which served as trade routes to Tibet.

With the need to cover as many roads as possible and as quickly as possible, with the funds available the strategy followed during the period was to construct low cost roads, which can hardly be relied upon to bear the load of wheeled and mechanised transport.

After 1975-76, the planning process in Sikkim fell in line with that of other parts of India. The low cost roads were, irrespective of their standard, classified into - State-Highway, Major District Roads and Other District Roads according to their importance.

With time, the increased volume and intensity of axle loads made it necessary to upgrade the low cost roads by improving their width, geometry, grade, surface and reinforcing/replacing the bridges along them so that these roads will not only meet the higher requirement of traffic volume and axle loads but also fall in line with the respective specifications assigned to State Highways, Major District Roads and Other District Roads assigned by the Ministry of Surface Transport.

Therefore, from the Fifth Plan onwards, attention was given to both upgradation of low cost roads and construction of new roads.

**3. Master Plan:** In view of the preponderant importance of the road network for the development of the State and in consonance with the directives of Government of India, a Master Plan covering 20 years (1980 A.D. - 2000 A.D.) was prepared & designed to provide accesses to most of the villages in the State by 2000 A.D., with an investment of Rs. 400 crores at 1979 price levels. This was later on revised (to cover 1985 A.D.- 2000 A.D.) with a somewhat lower target at an estimated investment of Rs. 209 crores, excluding administrative expenses at 1980 price level.

It was envisaged, in the Master Plan:-

- (a) to construct 695 km of new roads and 420 km of link roads so that by 2000 A.D. all the villages having population, of 200 and above (1971 census) and 50 percent of the villages with population below 200 would be covered.
- (b) Construct bridges on the new roads.
- (c) To upgrade 490 km of low cost roads which are narrow with steep gradient and non-standard geometry for the movement of heavy vehicles.
- (d) Replace bridges of low axle load carrying capacity along low cost roads by permanent bridges.

**4. Review of the Sixth Plan:** Before the beginning of the Sixth Plan there was the pressing need to cover a large number of villages, important from the agricultural socio-economic, tourism and religious points of view. Therefore, considerable thought was given to the construction of new areas and the upgradation of low cost roads & bridges along them. The achievements during the Sixth Plan are:-

- (a) Completion of 349 km of new roads upto earthen formation level only (including those that could not be completed during the Fifth Plan).
- (b) Improvement of 40 km of low cost roads upto the standard unsurfaced category.

- (c) Improvement of 19 km of non-standard road was brought to standard surfaced category.
- (d) Replacement of Melli Suspension Bridge by a permanent Prestressed Concrete bridge. By the end of the Sixth Plan the Status of Roads were as follows :-

(a) Carpetted roads	—	246 km
(b) Unsurfaced roads	—	505 km
(c) Non-standard roads	—	490 km
	Total	<u>1241 km</u>

5. **Seventh Plan:** The low cost roads constructed in the first few plans and the new roads completed upto intermediate stages needed considerable improvements to ensure their full utilisation. It was, therefore, thought appropriate to pay full attention to the upgradation works and completion of new roads lying in the intermediate stages. At the same time, attention was also given to provide connectivity to some of the far flung areas where there are no accesses at all. Striking a balance between these two activities certain targets were set forth for the Seventh Plan. The Annexure 'A' gives a picture of the target set forth, the progress achieved till 87-88 and anticipated progress at the end of the Seventh Plan. By the end of the Seventh Plan the status of roads would be as follows :-

	CARPETTED ROAD	UNSURFACED ROAD	NONSTANDARD ROAD	TOTAL
3/85	246 km	505 km	490 km	1241 km
3/90	395 km	722 km	339 km	1456 km

While efforts will be made to complete all the works commenced in Seventh Plan, during the plan itself a few schemes may spillover to Eighth Plan.

## 6. EIGHTH PLAN

**I. Aims & Objectives :-** Keeping in mind as a back drop the status of the road network that would be existing at the beginning of the Eighth Plan, the aims and objectives of the Eighth Plan can be determined as follows :

- (a) Upgradation of as many low cost roads as possible.
- (b) Replacement/Reinforcement of bridges which have low axle load bearing capacity by permanent bridges.

- (c) Completion of subsequent stages of works in new roads lying in the intermediate stages construction.
- (d) Bridging the gaps in the new roads completed upto earthen formation level by constructing bridges and
- (e) Upgradation of the equipment and infrastructure with the department to ensure greater operational efficiency. The basic aim will be consolidation and completion of tasks under-taken during the Seventh Plan as early as possible.

## II. Activities :

The activities of the department to achieve these aims and objectives set forth in the Eighth Plan can be categorised into the following major heads. Specific envisaged during the Plan have been listed in Annexure T.

### A. REMOVAL OF DEFICIENCIES

**Eighth Plan : Rs. 2050 lakhs**

**Annual Plan 1990-91 : Rs. 490 lakhs**

- (a) Upgradation of Low Grade Section :- In the beginning of Eighth Plan, there would be 339 kms of roads, which would need upgradation of geometry, protection, drainage & W.B.M., provided, and bituminous surface given, in order

to achieve better utilisation and improve the economics of operation. Because of the narrow width, steep gradient, bad geometry and weak surface, only small and light vehicles can be operated in the roads. The result is the high operation cost on the roads which have to be squarely borne by the users. About 51 villages have been directly affected by this. A large number of villages are directly or indirectly served by these roads.

It is envisaged that some of the important roads (whose list is given in Annexure 'X') would be upgraded upto W.B.M. level in the Eighth Plan. Out of these the important roads would be carpetted (list of such road given in Annexure 'Y').

Those non-standard roads which would remain upgraded upto the earthen surface level at the end of Seventh Plan would be further upgraded upto WBM standard and those which lie upgraded at the stage of WBM standard would be carpetted (Annexure 'Z').

**(b) Protection against Identified Major Slips :**

Due to the topographical features of the State i.e. geologically young mountains, heavy rainfall causing periodic soil disturbance etc. the road network is plagued by numerous slips. Some of the major slips affecting the road network have been identified (list enclosed - Annexure 'M'). In order to contain these slides, which are not only affecting the State but have also direct bearing on the flood damages in other States, it is essential to take preventive measures in the Eighth Plan.

**B. REPLACEMENT**

**Eighth Plan : Rs. 490 lakhs**

**Annual Plan 1990-91 : Rs. 100 lakhs**

(a) **Bridges** - The bridges with low axle load supporting capacity along the low cost roads, as already explained earlier, have to be either replaced by permanent bridges or reinforced. Such bridges apart from Mamring bridge whose replacement will be started in 1989-90 but will spillover to Eighth Plan, have been identified as follows :-

- (i) Sankalang Bridge  
(Reinforcement) - 83.84 metres.
- (ii) Kalej Bridge  
(Replacement) - 73.17 metres.
- (iii) Rimbi Bridge  
(Replacement) - 54.87 metres.
- (iv) Maney Chu Bridge  
(Replacement) - 45.00 metres.
- (v) Kunukung Bridge  
(Replacement) - 35.00 metres.
- (vi) Kaluk Chu Bridge  
(Reinforcement) - 36.05 metres.
- (vii) Takchom Chu Bridge  
(Reinforcement) - 76.20 metres.
- (viii) Rorochu Bridge  
(Reinforcement) - 70.00 metres.
- (ix) Rathong Chu Bridge  
(Reinforcement) - 60.96 metres.
- (x) Taryang Chu Bridge  
(Reinforcement) - 70.00 metres.

These will be taken up during the Eighth Plan.

(b) **Weak Pavement** - Apart from the Legship - Geyzing road the pavement of Nayabazar-Melli road, an important State Highway, has faced severe wear & tear due to soil instability and heavy traffic. It is important that the pavement of these roads are replaced. This will need priority attention during the Eighth Plan.

**(C) EXPANSION**

**Eighth Plan : Rs. 2325 lakhs**

**Annual Plan 1990-91 : Rs. 469 lakhs**

A review of the status relating to coverage of the road network of the villages show that the total length of roads at the end of the Seventh Plan would be 1454 km, which would be covering 286 villages leaving 154 villages still without proper accessibility. It is assessed that approximately 90000 persons would be without the benefit of connectivity with vehicular roads. The average cost of transportation to and from the nearest marketing centre (at an average distance of 10 km.) comes to Rs. 50.00 per quintal by head load. This means that the transportation cost of goods in such areas is much higher than those in areas where services of Sikkim National Transport Services are available. Apart from these, the absence of connectivity has led to limited spread of developmental and welfare schemes of the Government to these areas. It is estimated that to cover all the villages in Sikkim, a total road length of 784 kms have to be constructed as early as possible. Since all such roads cannot be constructed in the Eighth Plan itself prioritisation has been taken up and only the following roads are proposed to be commenced and completed upto earthen formation level.

	Name of Road	Length (km)	To be taken up & completed in the 8th Plan
1	Longchuk-Salyongdang	6 km.	6 km.
2	Mamring-Biring(Tarathang)	8 km.	8 km.
3	Song-Zingla	12 km.	8 km.
4	Lingchom-Hee	10 km.	5 km.
5	Lingzea-Sakyong	8 km.	4 km.
6	Vok-Denchong-Namchi	12 km.	8 km.
7	Phalidara-Parbing-Bermoik	30 km.	8 km.
8	Rayong-Tingmo-Kewzing	15 km.	10 km.
9	Assangthang-Salghari	12 km.	6 km.
10	Dalapchen-Regu (North & South- Shinganeybas)	30 km.	12 km.
11	Sakyong-Baluthang- Chungbung	15 km.	8 km.
12	Khaniserbong-Chota Samdong	16 km.	16 km.
13	Kongri-Phamtam	40 km.	16 km.
14	Payong-Sokpay	10 km.	6 km.
15	Namchi-Rong	25 km.	10 km.
		253 km.	135 km.

The new roads which have been completed upto earthen formation level by the end of Seventh Plan have to be protected, drainage & W.B.M. provided in the Eighth Plan so that the disturbed hill slopes due to cutting of the hills do not develop major slides. Also the vehicles travelling along these earthen surface roads bog down due to the mud and rain water. The deterioration of such roads due to heavy rains in the monsoon period takes place at a much higher rate than others. Out of 319 km of roads that would fall within this category, 163 km of roads which lie in the steep terrain with higher vulnerability to slides are proposed to be brought to W.B.M. standard in the Eighth Plan (Annexure 'O'). Out of 403 km of roads that would be in the stage of W.B.M. surface, it is proposed to provide bituminous surface in a few roads whose list is given in Annexure 'R' in the Eighth Plan.

C. **Bridges** - Once the roads are completed upto earthen formation level they can be utilised as a fair weather road but for this purpose construction of all bridges have to be taken up. There would be four nos. of roads that would be completed upto earthen formation level without bridges in the beginning of the Eighth Plan. Further, as already mentioned in the foregoing paragraphs 135

km of new roads would be taken up in the Eighth Plan. The bridges need to be constructed as soon as the roads are completed so that they can be fully utilized.

The necessity of the bridges of different spans have been examined along the roads where they are necessary. A list of 25 numbers of minor bridges and that of 11 (eleven) numbers of major bridges as given in Annexures 'P' and 'Q' respectively, has been identified for taking up within the eighth plan period.

#### D. LINK ROADS

**Eighth Plan : Rs. 125 lakhs**

**Annual Plan 1990-91 : Rs. 20 lakhs**

Due to the hilly topography of the State, there are some villages which are in isolated areas and cannot be covered by existing roads. These villages have to be connected by a link road branching off from the main roads. There are 34 nos. of such villages in the State, out of which it is expected that 19 nos. of villages be covered by different link roads by the end of Seventh Plan. It is proposed to connect more villages, out of the remaining unconnected villages by

link roads. The total length of roads required for this target is 24 km. The total cost to construct the roads is estimated at Rs. 125.00 lakhs.

#### **E. ADDITIONAL FACILITIES**

**Eighth Plan : Rs. 200 lakhs**

**Annual Plan 1990-91 : Rs. 40 lakhs**

Timely flow of the materials to the schemes taken in hand for execution can be ensured only if the procurement of such materials is planned well ahead and good storage facilities with adequate space exist. The existing store godown at Gangtok constructed about three decades back has not only become too congested but also led to severe traffic hazards. The explosives required for construction works are also being stored in the same place. Therefore, to establish a store complex, land where a separate explosive magazine at a safe distance would also be constructed, has already been acquired at Gangtok. The storage facilities with adequate storage godown and other infrastructure have to be established. The area will also accommodate the Mechanical work-shop. The mechanical work-shop with 10,000 sq. ft. area is required at Gangtok to support the large number of road machineries and vehicles of the department.

The storage facilities at Singtam (East District) and Geyzing (West District) would also have to be established as there is no storage facilities at present at Geyzing and a very small storage with capacity to accommodate 3,000 bags of cement only, located in the heart of town exists at Singtam. Therefore, it is proposed to establish storage godown with at least 1,000 MT capacity at these two places. Mechanical work-shop of 8000 sq. ft. & 7000 sq. ft. at Singtam and Jorethang respectively are also proposed, to be established.

In case of Jorethang, the existing small congested storage facilities in the heart of the town has to be shifted to the outskirts of Jorethang. The land has already been earmarked.

#### **F. ROAD MACHINERIES AND EQUIPMENTS**

**Eighth Plan : Rs. 550 lakhs**

**Annual Plan 1990-91 : Rs. 85 lakhs**

The road machineries and equipments are an essential element in all road building activities. To keep the road network open all the time, in this hilly terrain affected by large

scale slides, a large number of bulldozers and air compressors are required. Besides these, road rollers, bitumen mixers, boilers, trucks, graders and a few other minor machineries are required for the timely upkeep of the road network. The stock of machineries and equipment existing in the organisation is far below the requirement worked out on a realistic basis. The Annexure 'S' shows the number of machineries required according to the norm, the deficiencies that would be existing by the end of 1989-90. It is proposed to minimise the gap in the Eighth Five Year Plan by acquiring a number of machineries that are enumerated in the Annexures. In the past absence of a grader for grading of the road surface has been a severe handicap. Therefore, two graders along with other machineries have also been proposed to be acquired. The fleet of machineries have to be supported by a number of suitable located workshops. The workshop complex at Gangtok and Jorethang are located in the heart of the towns with very congested working spaces. A new area for establishing a workshop has already been acquired as regards Gangtok. For Jorethang it is proposed to acquire a new area for establishment of a workshop and storage complex. The machineries & equipments required for the special repairs and maintenance of the road machineries in the four workshops located at Gangtok, Geyzing, Singtam & Jorethang are far too inadequate compared to the requirement. The total number of existing machineries and equipments, the number that would be existing by the end of the Seventh Plan, the number of machineries proposed to be acquired and the estimated cost is given in Annexure 'S'. Since there are no H.S.D. pumps with adequate capacity even in the capital and District Headquarters, the non-availability of required H.S.D. has been a source of delay in keeping open the road network during monsoon. Therefore, installation of one 6 kl capacity steel tank with a pump set at each of the workshops has been proposed in the Eighth Plan.



## G. DIRECTION AND ADMINISTRATION

**Eighth Plan : Rs. 150 lakhs**

**Annual Plan 1990-91 : Rs. 23 lakhs**

The Sikkim Public Works Department (Roads & Bridges) has at present one Principal Chief Engineer-cum-Secretary, one Chief Engineer with two circles, one Research & Development and Planning Division, four field Divisions (with nine sub-divisions), one Mechanical Circle (with one Division and four sub-division). With the increased road length the volume of work it has become necessary to create one circle and one more Division in the Mechanical side. Similarly two Civil sub-divisions one at Soreng and one at Rabongla are required to be created. There is one Store Division to handle the procurement and distribution of all stock materials throughout the State. At present there is only one Sub-division for store at Gangtok to handle the procurement and distribution of Stores. The responsibility of procurement and distribution at Singtam and Jorethang is shouldered by the Mechanical Assistant Engineer in addition to their duties. This arrangement has since long been unworkable with the increased volume of work. Therefore, two sub-division at these places and one at Geyzing, the West District Headquarters have to be created with requisite staff.

At present the two circles are stationed at Gangtok. All the accounts works and other

administrative matters are dealt in the Head Office. Due to lack of accounts personnel this area of administration has suffered considerable neglect.

This will also help in achieving greater decentralisation of activities in the department.

## H. RURAL ROADS AND BRIDGES

**Eighth Plan: Rs. 500 lakhs**

**Annual Plan 1990-91: Rs. 75 lakhs**

The programme for construction of village roads for inter village communication is proposed to be continued during the Eighth Plan. This also includes construction of jeepable roads in the rural area. So far village footpaths were being constructed under NREP and RLEGP and this will have to be taken care of by the JRY. As regards bridges in view of the innumerable streams and rivulets in the State, a very large number of bridges has to be built. In some cases bailey bridges are constructed and in a very large number of cases basic foot bridges are constructed with wooden structures. In a very small number of cases RCC and steel bridges are also taken up. For the programme of rural bridges and roads, Rs. 5 crores is proposed for the Eighth Plan.

Out of a total provision of Rs. 6390 lakhs provided for Eighth Five Year Plan, Rs. 1402 lakhs has been earmarked for Annual Plan 1990-91. Schemewise allocation is given in statement GN - 2.

## ANNEXURE-A

### ROADS BROUGHT FROM NON-STANDARD CATEGORY TO W.B.M. STANDARD

Sl. No.	Name of roads	Kms.
<b>I. Achievement till 1987-88</b>		
a) 1.	Nayabazar - Legship	26
2.	Soreng - Kaluk	16
3.	Kaluk - Dentam	19
4.	Makha - Dikchu	20
5.	Rimbi - Yoksum	22
6.	Pelling - Rimbi	15
7.	Pabong - Simchuthang (Part length)	4
8.	Namchi - Assangthang	4
		126 Kms.

#### Anticipated in 1988-89

b) 1.	Tintek - Dikchu (Part length)	3
2.	Khamdong - Lingzea	26
3.	Rimbi - Khechiperi	11
4.	Pakyong - Machung (Part length)	4
5.	D.S.M. (Part length)	3
6.	Makha - Yangang	22
		69 Kms.

#### Anticipated in 1989-90

c) 1.	D.S.M. (Part length)	4
2.	S.B.S. (Part length)	6
		10 Kms.

### ROADS BROUGHT FROM NON-STANDARD CATEGORY TO STANDARD SURFACED CATEGORY IN THE SEVENTH PLAN

#### Till 1987-88

Sl. No.	Name of roads	Km.
1.	Makha - Dikchu	20
2.	Rimbi - Yoksum (Part length)	10
3.	Pabong - Simchuthang (Part length)	4
		34 Kms.

#### Anticipated in 1988-89

1.	Namchi - Assangthang	4
2.	Nayabazar - Legship	26
3.	Tintek - Dikchu	3
		33 Kms.

#### Anticipated in 1989-90

1.	Soreng - Kaluk	16
2.	Khamdong - Lingzea (Part length)	16
		32 Kms.

### LIST OF ROAD TO BE WIDENED UPTO EARTHEN PORMATION LEVEL IN EIGHTH PLAN

#### I. STATE HIGHWAY

a)	Sirwani - Pabong - Rabongla	35 Km.
b)	Damthang - Namchi	13 Km.

#### II. MAJOR DISTRICT ROADS

a)	Pakyong - Machung (Part length)	12 Km.
b)	Rangpo - Duga	7 Km.
c)	Phong - Namchi	19 Km.
d)	Geyzing - Pelling	10 Km.
e)	Dikchu - Sankalang - Mangan (Part)	20 Km.
f)	Sankalang - Bey - Sakyong (Part)	13 Km.
g)	Gangtok - Rumtek - Song - Khamdong	10 Km.

#### III. OTHER DISTRICT ROADS

a)	Tintek - Dikchu (Part)	12 Km.
b)	Sirwani - Bermoik	10 Km.

## ANNEXURE-X

### LIST OF ROADS PROPOSED TO BE UPGRADED TO STANDARD IN CASE OF ROADS WHERE WIDENING UPTO EARTHEN FORMATION LEVEL IS COMPLETED

#### I. MAJOR DISTRICT ROADS

a)	Pakyong - Machung (Part length)	16 Km.
b)	Rangpo - Duga	7 Km.

c)	Phong - Namchi	19 Km.
d)	Geyzing - Pelling	10 Km.
e)	Dikchu - Sankalang - Mangan (Part)	20 Km.
f)	Sankalang - Bey - Sakyong (Part)	13 Km.

## II. OTHER DISTRICT ROADS

a)	Tintek - Dikchu (Part)	15 Km.
b)	Sombaria - Hilley	29 Km.
Total :		<u>129 Km.</u>

## ANNEXURE-Y

### LIST OF ROADS PROPOSED TO BE CARPETTED WHERE WORK OF UPGRADATION UPTO W. B. M. STANDARD HAS COMPLETED

#### I. MAJOR DISTRICT ROADS

a)	PHONG-Namchi	19 Km.
b)	Geyzing-Pelling	10 Km.

#### II. OTHER DISTRICT ROADS

a)	Tintek-Dikchu	15 Km.
Total :		<u>44 Km.</u>

## ANNEXURE-Z

### LIST OF ROADS WHICH REMAIN UPGRADED UPTO EARTHEN SURFACE LEVEL AT THE END OF SEVENTH PLAN PROPOSED TO BE FURTHER UPGRADED UPTO W.E.M. STANDARD

I.	STATE HIGHWAY	—Nil
II.	MAJOR DISTRICT ROADS	—Nil
III.	OTHER DISTRICT ROADS	
a)	Dikchu-Sankalang-Mangan (Part length)	6 Km.
b)	Sankalang-Bey-Sakyong (Part length)	6 Km.

### LIST OF ROADS WHICH REMAIN UPGRADED UPTO W.B.M. STANDARD PROPOSED TO BE CARPETTED

I.	STATE HIGHWAY	—Nil
II.	MAJOR DISTRICT ROADS	
a)	Assam-Pakyong	— 16 Km.
III.	OTHER DISTRICT ROADS	
a)	Penlong-Tintek	— 20 Km.
b)	Pelling-Rimbi	— 15 Km.

## ANNEXURE-M

### THE IDENTIFIED MAJOR SLIDES

1. Lamba Vir slide at 11th km of Naya-bazar-Melli road.
2. Kumrek slip at 3rd km of Rangpo Rorathang road.
3. 24 km slide of Dikchu-Sankalang-Mangan (D.S.M.) road.
4. Narak slip on Manning Phong road.
5. Pechrek slip on Kaluk-Dentam Road.
6. Clumbung slip on Budang-Soreng road.
7. Namok slide at 3rd km of Dikchu Rangrang road.
8. 25th km slide of Nayabazar-Melli road.
9. Ring Khola slide on D.S.M. road.
10. Bhutay slip at 15th km of Kaluk Dentam road.
11. 4th mile slide of Makha-Dikchu road.
12. 17th km slip at Rabongla-Yangang road.
13. 11th km slip at G.R.B.A. road.

## ANNEXURE-O

### THE NEW ROADS WHICH ARE IN EARTHEN FORMATION LEVEL PROPOSED TO BE BROUGHT TO SURFACED LEVEL :

	NAME OF ROADS	LENGTH (kms)
1.	Rongli-Rolep	13
2.	Sikkip-Vok	12
3.	Gyava-Tikjek	5
4.	Ralong-Phamtam	16
5.	Duga-Pacheykhani	6

6.	Sombaria-Puretar	13
7.	Rumtek-Ray-Ranka	19
8.	Ship-Gyer	6
9.	Samdong-Approach	4
10.	Pakyong-Mamring	8
11.	Darap-Nambooc	8
12.	Rayang-Tinkitam	15
13.	Sichey-Ranka-Gangtok	12
14.	Chuwatar-Pandam	17
15.	Rongli-Dalapchen	9
Total :		<hr/> 163.00 <hr/>

## ANNEXURE-R

### ROAD TO BE CARPETTED UNDER EXPANSION PROGRAMME

1.	Ranipool-Lingzey-Assam	8 Km.
2.	Manpur-Sumbhuk	— 15 Km.
3.	Phongla-Bermiok	— 24 Km.
4.	Reshi-Rinchenpong	— 26 Km.
5.	Soreng-Dodak-Sombaria	— 22 Km.
6.	Raley-Samdong	— 10 Km.
7.	Malbassey-Soreng	— 10 Km.
8.	Yoksum-Tashiding	— 20 Km.
9.	Sikkip Vak	— 12 Km.
Total :		<hr/> 147 Km. <hr/>

## ANNEXURE-P

### MINOR BRIDGES TO BE TAKEN UP IN THE EIGHTH PLAN

- 40 mtr. span steel bridge on Ranka-Luing Road.
- 35 mtr. span steel bridge on Ranka-Luing Road.
- 40 mtr. span steel bridge on Chongrang-Kongri Road.
- 2 nos 30 mtr. span steel bridge on Chongrang - Kongai road.
- 35 mtr. span steel bridge on Chakung-Khaniserbong Road.
- 2 nos. 25 mtr. span R.C.C. bridge on Chakung-Khaniserbong road.
- 4 nos. short span steel bridge (average 6 mtr. span) on Chakung-Khaniserbong road.
- 6 nos. short span steel bridges (average 6 mtr. span) on Chongrang-Kongri road.
- 30 mtr. span steel bridge on Melli-Turuk road.
- 15 mtr. span R.C.C. bridge on Dalapchen Rongli road.

- 20 mtr. span R.C.C. bridge on Dalapchen-Rongli road.
- 7 nos. short span R.C.C. bridge (average 5 m span) on Dalapchen-Rongli road.
- 20 mtr. span R.C.C. bridge on Lungchok-Salyang-dang road.
- 10 mtr. span R.C.C. bridge on Lungchok-Salyang-dang road.
- 3 nos. 25 mtr. span R.C.C. bridge on Mamring Tarethang road.
- 2 nos. 32 mtr. span steel bridge on Song-Zingla road.
- 2 nos. small span R.C.C. bridge on Lingchom-Hee road.
- 25 mtr. span steel bridge on Assangthang-Salghari-Karfektar Road.
- 40 mtr. span steel bridge on Vok-Namchi road.
- 2 nos. 25 mtr. span R.C.C. bridge on Vok-Namchi road.
- 25 mtr. span R.C.C. bridge on Phalidara-Parbing Bermiok road.
- 3 nos. 25 mtr. span steel bridge on Rayong-Tingmo-Kewzing road.
- 2 nos. 35 mtr. span steel bridge on Dalapchen-Regu-Singaneybas road.
- 2 nos. 18 mtr. span R.C.C. bridge on Sakyong Bhaluthang-Chumbung road.
- 1 no. 35 mtr. span steel bridge on Lingdom road.

## ANNEXURE-Q

### MAJOR BRIDGES TO BE CONSTRUCTED IN EIGHTH PLAN

- 90 mtr. span suspension bridge on Chongrang Zongri road.
- 2 nos. 75 mtr. span suspension bridges on Chongrang - Kongri road.
- 65 mtr. span suspension bridge on Chakung Khaniserbong road.
- 2 nos. 60 mtr. span suspension bridge on Chakung-Khaniserbong road.
- 55 mtr. span suspension bridge on Vok-Namchi road.
- 68 mtr. span suspension bridge on Phalidara Parbing-Bermiok road.
- 65 mtr. span suspension bridge on Rayong-Kewzing road.
- 2 nos. 75 mtr. span suspension bridge on Singaneybas road.

Total No. 11 nos. Total span - 763 mtr.

## ROAD MACHINERIES AND EQUIPMENTS PROPOSED TO BE ACQUIRED

Sl. no.	Machineries	Position as on 31/3/85 (nos)	Available as on 31/3/88 (Nos)	Available as on 31/3/88 (Nos) anticipated	Required as per norm (Nos.)	Deficiency	PROPOSED 8TH PLAN OUTLAY 1990-95				
							To be replaced (Nos) 'A'	To be added (Nos) 'B'	Total A+B (Nos)	Cost in lakhs (Rs)	Deficiency at the end of 1994-95
1	2	3	4	5	6	7	8	9	10	11	12
1.	Bulldozer	19	24	29	48	40%	7	4	11	175.00	31%
2	Road Roller	16	21	23	30	23%	7	2	9	30.00	16%
3.	Air Compressor.	17	17	19	29	34%	4	3	7	28.00	24%
4.	Truck	6	8	8	12	33%	4	..	4	14.50	33%
5.	Hydraulic Crane fitted truck	2	2	2	4	50%	2	1	3	19.80	25%
6.	Asphalt Mixer	..	9	10	15	33%	4	1	5	21.00	26%
7.	Tar Boiler	7	9	10	15	33%	6	2	8	7.50	20%
8.	Mobile crane	1	1	1	4	75%	..	2	2	8.70	25%
9.	Loader	..	2	2	4	50%	..	2	2	45.00	..
10.	Concrete Mixer	7	7	8	16	50%	4	4	8	5.00	25%
11.	Concrete Vibrator	6	8	12	16	25%	4	2	6	1.60	12%
12.	Diesel Storage tank	..	2	2	4	50%	..	2	2	2.00	..
13.	Diesel Welding generator	2	4	4	4	..	2	..	2	5.00	..
14.	Water Pump	2	4	4	4	..	2	..	2	1.20	..
15.	Stone crusher	2	2	2	4	50%	2	1	3	13.50	25%
16.	Accessories for the above machineries.	..	..	..	..	..	..	..	..	40.00	..
17.	Grader	..	..	..	..	100%	..	1	1	19.00	50%
										437.60	

WORKSHOP EQUIPMENTS												
1	2	3	4	5	6	7	8	9	10	11	12	
18.	Lathe Machine	2	2	3	4	(for 4 W/Shops :- Gangtok :- 1 Singtam :- 1 Jorethang :- 1 Geyzing :- 1	25%	-	1	1	2.00	nil
19.	Drilling Machine	4	4	4	4		nil	2	..	2	2.00	nil
20.	Shaping Machine.	2	2	2	4		50%	—	2	2	1.30	nil
21.	Slotting Machine.	2	2	2	4		50%	—	2	2	1.30	nil
22.	Boring Machine.	..	..	..	4		100%	..	4	4	4.70	nil
23.	Fuel pump callibrating machine.	..	...	..	1		100%	..	1	1	4.00	nil
24.	Injector Callibrating machine.	..	..	..	1		100%	..	1	1	2.00	nil
25.	Power Hacksaw.	4	4	4	4		nil	2	nil	2	1.20	nil
26.	Valve refacing Machine.	..	1	1	4		75%	..	3	3	1.40	nil
27.	Portable battery charger machine	..	..	..	4		100%	..	4	4	2.20	nil
28.	Welding set	4	4	4	4		nil	4	..	4	2.20	nil
29.	Hydraulic press	..	2	2	4		50%	..	2	2	2.20	nil
30.	Normal Workshop tools set	4	4	4	4		nil	2	—	2	12.20	nil
31.	Special tools set for heavy machinerics	4	4	4	4		nil	2	—	2	17.00	nil
32.	Mobile workshop van	—	—	—	4		100%	—	2	2	9.00	nil
33.	Overhead travelling crane	1	1	1	4		75%	—	3	3	11.00	nil
34.	Installation of 6 kg capacity reserve tank with pump at 3 places-Geyzing, Jorethang, & Mangan.	—	—	—	—		—	—	3	3	9.00	nil

## LIST OF SCHEMES ENVISAGED DURING THE PLAN

ANNEXURE: I

(Rs. in lakhs)

Name of Scheme/ Projects	Seventh	Eighth Five	1990	...	91
	Five Yr. Plan (1985-90) Exp. anti-cipated.	Year Plan (1990-95) Proposed Outlay	Proposed Outlay		Of which capital content.
1.	2.	3.	4.		5.
<b>I REMOVAL OF DEFICIENCIES:</b>					
A. MINOR HEAD-Improvement of low grade section.					
(a) Spillover					
1) Soreng-Kaluk-Dentam (35 km) Continuation Completion of carpetting works	25.00	100.00	35		35
Sub-total ( a )	25.00	100.00	35		35
(b) New Schemes:					
(1) Simchuthang-Yangang (14km), Carpetting works.		— 49.00	20.00		20.00
(2) Khamdong-Lingzea-Tintek-Penlong (40 km) carpetting.		— 166.00	40.00		40.00
(3) Pakyeng-Machong (16 km) widening of balance 12 km providing protection drainage & WBM full length.		— 123.00	20.00		20.00
(4) Rongpo-Duga (7 km) ; widening, providing protection, drainage & WBM		— 75.00	20.00		20.00
(5) Phong-Namchi (19 km) ; widening, providing protection, drainage, WBM carpetting.		.. 205.00	..		..
(6) Geyzing-Pelling (10 km) widening, providing protection, drainage, WBM and carpetting.		.. 108.00	40.00		40.00
(7) Dikchu-Sanklang-Mangan (27 km) ; widening the balance length of 20 km providing protection works, drainage WBM		.. 207.00	30.00		30.00
(8) Tintek-Dikchu (12 km) ; widening providing protection, drainage & WBM.		.. 130.00	—		—
(9) Makha-Yangang (22 km) Carpetting of the surface.		.. 77.00	20.00		20.00
(10) Sanklang-Bay-Sakyong (19 km) ; widening of 13 km of remaining length & providing protection & WBM to the whole length.		.. 143.00	30.00		30.00
(11) Pelling-Rinbi ( 15 km ) ; carpetting of the surface.		.. 53.00	30.00		30.00
(12) Sombaria-Hiley (29 km) ; widening, protection, drainage & WBM		.. 314.00	70.00		70.00
	Sub - total :		1650.00	320.00	320.00
	Sub - Total: A + B, :		1750.00	355.00	355.00

	1	2	3	4	5
(B) MINOR HEAD-PROTECTION & SLOPE TREATMENT.					
(a) Spillover - Nil.		..	..	..	..
Sub-total (a)					
(b) New Schemes :					
Providing Toe Protection, Hill protection & drainage at :-					
(1) Lamba Bhir slide at 11 km of Naya Bazar-Melli road.		..	10.00	10.00	10.00
(2) Kunrek slip at 3rd km of Rangpo Rora-thang road.		..	60.00	30.00	30.00
(3) 24th km slide of Dikchu - Sankalang Mangan ( D-S-M- ) road		..	15.00	15.00	15.00
(4) Narak slip at Mamring Phong road		..	10.00	10.00	10.00
(5) Pechrek slip on Kaluk-Dentam road.		..	40.00	..	..
(6) Chumbung slip on Budang-Soreng road.		..	10.00	..	..
(7) 26th km Massive slide of Nayabazar Melli road.		..	95.00	50.00	50.00
(8) Ringkhola slide on D.S.M. road.		..	10.00	..	..
(9) 4th mile slide of Nathula-Dikchu road		..	10.00	..	..
(10) 17th km slip at Rabongla-Yangang road.		..	20.00	..	..
(11) 11th km slip at G.R.B.A. road.		..	20.00	20.00	20.00
Sub-Total (b)		..	300.00	135.00	135.00
Total (1) Removal of deficiencies		..	2050.00	490.00	490.00
II REPLACEMENT					
A. MINOR HEAD - Weak Bridges.					
a. Spillover-Schemes.					
1) Mamring Bridge		40.00	300.00	60.00	60.00
Sub-total (a) :		40.00	300.00	60.00	60.00
b) New Schemes :					
1) Kalej Bridge (73.17 mtr.) - Replacement		..	30.00	20.00	20.00
2) Rimbi Bridge ( 54.87 mtr ) -do-		..	20.00	..	..
3) Maneychu Bridge ( 45.00 mtr ) -do-		..	25.00	20.00	20.00
4) Kanaka Bridge ( 36.00 mtr ) Reinforcement		..	15.00	..	..
Sub-total (b) :		..	90.00	40.00	40.00



1.	2.	3	4	5
(B) Minor Head .. Weak Pavement				
(b) Spillover Schemes .. Nil	..	..	..	..
Sub - total (a)	..	..	..	..
(b) New Schemes : Nil	..	..	..	..
Sub - total (b)	..	..	..	..
(C) Minor Head .. Replacement of Causeways, by culverts :				
(a) Spillover .. Nil	..	..	..	..
Sub - total (a)	..	..	..	..
(b) New Schemes	..	100.00	..	..
Sub - total (b)	..	100.00	..	..
REPLACEMENT				
TOTAL II	..	490.00	100.00	100.00

### III EXPANSION

A. Minor Head: New Roads carrying out second phase work i e .  
Providing, Protection  
drainage & WBM.

1	2	3	4	5
1. Dgau - Pacheykhani (12 km) ; second phase work in the remaining 6 km length	..	33.00	..	..
2. Rongli - Rolep (13 km) carrying out second phase work.	..	72.00	..	..
3. Ralong - Phamtam (16km) second phase work.	..	88.00	30.00	30.00
4. Gyava - Tikjek ( 5 km) second phase work.	..	25.00	25.00	25.00
5. Sombaria - Puretar ( 13 km ) second phase work.	..	72.00		
6. Rumtek - Ray-Ranka (13 km ) Second phase work.	..	95.00	40.00	40.00
7. Shipgyer (6 km) second phase work		31.00		
8. Samdong approach (4 kms) second Phase.	..	22.00	..	..
9. Pakyong - Mamring (8km), Second phase	..	44.00	..	..
10. Darap - Namboo (8 km) Second phase	..	44.00	..	..
11. Rayong - Tinkitam (18km), second Phase work	..	84.00	30.00	30.00
12. Sichey - Ranka - Gangtok (14 km) second phase work in the balance 12 km length & carpetting.	..	100.00	40.00	40.00
13. Rongli - Dalepchen (9km).	..	50.00	30.00	30.00
14. Assam - Lingzey ( 8 km ) Carpetting	..	15.00	..	..
15. Manpur -Sumbuk (15 km) carpetting.	..	36.00	..	..

1	2	3	4	5
16. Phongla - Bermoik (24 km)- do-	..	57.00	..	..
17- Reshi - Rinchenpong ( 26 km)-do-	..	62.00	..	..
18. Soreng - Dodak - Sombaria (22 km) carpetting.	..	53.00	..	..
19. Raley-Samdong (10 km) carpetting.	..	24.00	..	..
20. Malbassey - Soreng (10 km).	..	24.00	..	..
21. Yuksom . Tashiding (20 km) carpetting	..	48.00	..	..
22. Sikkip - Vok (12 km) Second Phase work.	..	67.00	..	..
Sub - total	..	1146.00	195.00	195.00
Roads to be constructed upto earthen formation level only.				
1. Longchuk - Salyondong (6 km)	..	48.00	30.00	30.00
2. Mamring-Tarathang - Biring ( 8 km. )	..	60.00	40.00	40.00
3. Song-Zingla Martam. (18km) 18km to be undertaken	..	90.00	40.00	40.00
4. Lingchom- Hee (10 km) only 5 km to be undertaken.	..	27.00	..	..
5. Vok - Denehong - Namchi (12 km) only 8 km to be undertaken.	..	42.00	20.00	20.00
6. Phalidara - Pabon - Bermoik (30 km) only 5 km to be undertaken	..	25.00	..	..

1	2	3	4	5
7. Rayong - Tingmo - Kewzing (15 km) only (5 km) to be undertaken.	..	27.	..	..
8. Assangthang - Salghari (12 km) only 4 km to be undertaken.	..	22.00	..	..
9. Dalapchen - Regu North & South Shinganey bas (30 km) only 10 km to be undertaken	..	55.00	..	..
10. Sakyong - Saluthang Chumbung (15 km) 5 km to be undertaken	..	27.00	..	..
11. Khaniserbong - Chota Samdong (10 km)	..	84.00	..	..
12. Kongri - Phamtam (40 km) only 10 km to be undertaken.	..	55.00	..	..
13. Pakyong - Karthok - Namchey bong (2 km)	..	11.00	11.00	11.00
14. Namchi - Rong (25) km 5 km to be undertaken.	..	27.00	6.00	6.00
Sub-total	..	600.00	147.00	147.00
MAJOR BRIDGES :				
(a) Spillover - Nil	..	..	..	..
Sub-total : (a)	..	..	..	..
(b) New Schemes				
1) 90 mtr. span suspension bridge on Chongrang - Kongri road.	..	22.00	..	..
2) 2 nos. 75. mtr. span suspension bridge on Chongrang Kongri road.	..	40.00	..	..
3) 65 mtr. span suspension bridge on Chakung Khaniserbong road.	..	20.00	13.00	13.00

1	2	3	4	5
4) 2 nos. 60 mtr. span suspension bridge on Chakung - Khaniserbong road.	..	33.00	20.00	20.00
5) 55 mtr. span suspension bridge on Vok - Namch road.	..	15.00	..	..
6) 68 mtr. span suspension bridge on Phalidara - Parbing - Bermoik road	..	18.00	..	..
7) 65 mtr span suspension bridge on Rayong - Kewzing road	..	16.00	16.00	16.00
8. 2 nos. 75 mtr. span suspension Bridge on Singaneybas (Regu) road	..	36.00	..	..
	..	200.00	49.00	49.00
MINOR BRIDGES				
(a) Spillover - Nil	..	..	..	..
	..	..	..	..
(iv) Minor Bridges	Sub - total (a)			
(b) Spillover .. Nil	..	..	..	..
	..	..	..	..
(b) New Schemes :				
(1) 40 mtr. span steel Bridges on Ranka Luing Road.	..	15.00	15.00	15.00

1	2	3	4	5
(2) 35 mtr. span steel bridge on Ranka Luing Road.	..	13.00	13.00	13.00
(3) 5 nos. of small bridges on Ranka - Sichey Road.	..	11.00	..	..
(4) 40 mtr. Span steel bridge on Dikchu - Rang-rang Road	..	15.00	..	..
(5) 40 mtr. span steel bridge on Chongrang - Kongri road	..	15.00	15.00	15.00
(6) 2 nos. 30 mtr. span steel bridge on Chongrang Kongri road.	..	23.00	..	..
(7) 35 mtr. span steel bridge on Chakung-Khaniserbong Road.	..	13.00	13.00	13.00
(8) 2 nos. 25 mtr. span R. C. C. bridge on Chakung khaniserbong road	..	15.00	..	..
(9) 4 nos. short span steel bridge (avg 6m span) on Chakung-Khaniserbong road	..	9.00	..	..
(10) 6 nos short span steel bridge (avg 6m span) on Chongrang - kongri road)	..	14.00	..	..
(11) 30 mtr. span steel bridge on Melli Terok road.	..	11.00	..	..
(12) 15 mtr. span R. C. C. bridge on Dalapchen Rongli road.	..	5.00	5.00	5.00
(13) 20 mtr. span R. C. C. bridge on Dalapchen Rongli road	..	6.00	6.00	6.00
(14) 7 nos. short span R. C. C. Bridge (avg 5-metre span) on Dalapchen - Rongli road.	..	11.00	11.00	11.00
(15) 20 mtr. span R. C. C Bridge on Lungchok Salyangdang road.	..	6.00	..	..

	1	2	3	4	5
(16)	10 mtr. span R. C. C Bridge on Lungchuk Salyangdang road.	..	3.00	..	..
(17)	3 nos. 25 mtr. span R. C. C. Bridge on Mamring - Tarathang road.	..	23.00	..	..
(18)	2. nos. 32 mtr. span steel bridge on Song - Zingla road.	..	24.00	..	..
(19)	2 nos. small span R.C.C bridge on Linchom Hee road.	..	3.00	..	..
(20)	25 mtr. span steel bridge on Assangthang Salghari Karfectar road.	..	10.00	..	..
(21)	40 mtr. span steel bridge on Vok-Namchi road.	..	15.00	..	..
(22)	2 nos. 29 mtr. span R. C. C. bridge on vok Namchi road.	..	15.00	..	..
(23)	25 mtr. span R. C. C. Bridge Phalaidara Parbing - Bermiok road.	..	8.00	..	..
(24)	3. nos. 35 mtr. span steel bridge on Rayong - Tingmo - Kewzing road.	..	28.00	..	..
(25)	2 nos. 35 mtr. span steel bridge on Dalapchen-Regu Shagenay bas road.	..	27.00	..	..
(26)	2 nos. 10 mtr. span R. C. C. bridge on Sakyong Baluthang Chakung road.	..	11.00	..	..
(27)	1. No. 8 mtr. span R. C. C. Bridge on Tung - Shipgyer Road	..	3.00	..	..
(28)	1. no. of 35 m span steel bridge on Lingdom road.	..	27.00	..	..
	Sub total (b)	..	379.00	48.00	78.00
	Total III - Expansion	..	2325.00	469.00	469.00

## DRAFT EIGHTH FIVE YEAR PLAN ( 1990-95 ) AND ANNUAL PLAN 1990 - 91

## HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE Statement GN . 2

## DEPARTMENT : ROADS &amp; BRIDGES

( Rs. in lakhs )

Code No.	Name of the Scheme/ Project	Seventh Plan outlay (1985-90)	Expenditure 1985-86 to 88-89	Outlay 1990- 90	Proposed outlay Eighth Plan 1990-95	Of which capital content	Annual plan 1990-91 proposed outlay	Of which capital content-
1	2	3	4	5	6	7	8	9
107305400	ROADS & BRIDGES							
04	District & Other Roads							
052	Machinery & Equipment	150.00	224.73	76.00	550.00	550.00	85.00	85.00
102	Bridges (Replacement)	543.00	583.86	80.00	490.00	490.00	100.00	100.00
337	Road Works (Removal of deficiencies)	1307.00	1405.35	372.50	2050.00	2050.00	490.00	490.00
800	Other Expenditure							
(i)	Bridges (MNP) (Expansion)	165.00	123.27	105.00	579.00	579.00	127.00	127.00
(ii)	Roads (MNP) (Expansion inclu- ding Link Roads)	1000.00	747.17	238.50	1871.00	1871.00	362.00	362.00
(iii)	Inter village communication (RDD)	305.00	286.00	76.00	500.00	500.00	75.00	75.00
107305480	General							
001	Direction & Admn.	170.00	124.53	40.00	150.00	..	23.00	..
800	Other Expendi- ture	100.00	120.66	76.00	200.00	200.00	40.00	40.00
	Total	3740.00	3615.57	1064.00	6390.00	6240.00	1302.00	1279.00



## CHAPTER XVI

**Road Transport**

1. The State of Sikkim is land locked and is entirely dependent upon road transport. There has been very substantial increases in both the passenger and goods movement, with the increase in population and growth of the economy. A large variety of goods have to be brought into the State and in the absence of railhead within the State, the railhead at New Jalpaiguri/Siliguri is utilised. The road network has expanded very considerably within the State and villages with population of 200 and above have been given accessibility in most cases to the road network. The Sikkim Nationalised Transport has to bear the responsibility of bringing in huge volume of goods and passenger traffic from outside the State as also cater to the requirements for transport and travel within the State. It is incumbent on the part of the undertaking to ensure uninterrupted and efficient services so that the population which is dependent upon road transport is not handicapped in any way. Further with the increasing requirements of materials for the defence services, the responsibility of transportation of these materials has fallen upon the shoulders of the Sikkim Nationalised Transport.

2. The Sikkim Nationalised Transport came into being in 1944 and has been functioning as a departmental undertaking ever since then. There has been substantial growth of the undertaking's activities in terms of number of buses and trucks in the fleet, coverage in passenger traffic and goods traffic. The Sikkim Nationalised Transport buses carry passengers to almost all the remote areas in Sikkim and even though quite a number of these roads are not economical, as a social service, these have been considered essential. At the end of the Fifth Plan the Sikkim Nationalised Transport had 130

trucks and 56 buses. Considerable replacement of old vehicles took place during the Sixth Plan period, as a result of which by the beginning of the Seventh Plan the undertaking had 136 trucks and 91 buses. During the Seventh Plan further addition to the fleet and replacement of old vehicles had taken place as a result of which the Sikkim Nationalised Transport will have 142 buses and 210 trucks at the end of the Seventh Plan.

3. The traffic both in terms of goods and passengers has been growing at a rapid rate, particularly during the Seventh Plan. It is estimated that on an average 17 percent growth in goods traffic and 16 percent growth in passenger traffic has taken during the period. It is expected that during the Eighth Plan this trend will continue. Further the need, for opening of new routes, replacement of old and over aged vehicles, betterment of passenger amenities and modernisation and improvement of workshop facilities will have to be given adequate attention in the Eighth Plan. It is also necessary to build up infrastructure at Siliguri so that movement of goods transshipment are taken care of.

4. The variables involved in estimating the Plan size will no doubt depend on the availability of new and better road, longer length of operation, industrial and agricultural growth, urbanisation and development of tourism. The following table gives an idea of growth on bus and goods traffic in the 7th Five Year Plan.

	1985-86	86-87	87-88	88-89	89-90
1) Bus Kms in Lakh	20.00	23.70	27.00	31.00	35.00
2) %age increase	18.00	18.00	13.00	14.00	13.00
3) No. of passengers transported (lakhs)	6.50	7.50	8.50	10.00	12.00
4) %age increase	—	15.00	13.00	17.00	20.00
5) Goods transported (Ton) in lakhs	1.50	1.55	1.77	2.00	2.30

The average growth rate per passenger operation is about 16 % and operation is about 17 percent.

## A) BLOCK CAPITAL :

## B) Fifth 5 Year Plan - 1975-80 (Rs. in lakhs)

	<u>1975-76</u>	<u>76-77</u>	<u>77-78</u>	<u>78-79</u>	<u>79-80</u>
2) Sixth 5 Year Plan - 1980-85 (Rs. in lakhs)	26.43	77.30	102.00	150.00	201.00
	<u>1980-81</u>	<u>81-82</u>	<u>82-83</u>	<u>83-84</u>	<u>84-85</u>
	249.00	303.00	400.00	447.00	510.00
3) Seventh 5 Year Plan - 1985-90 (Rs. in lakhs)	<u>1985-86</u>	<u>86-87</u>	<u>87-88</u>	<u>88-89</u>	<u>89-90</u>
	556.00	667.00	791.00	923.00	1067.00

## B) REVENUE &amp; EXPENDITURE (Rs. in crores)

## 1) Fifth 5 Year Plan - 1975-80 (Rs. in crores)

	<u>1975-76</u>	<u>76-77</u>	<u>77-78</u>	<u>78-79</u>	<u>79-80</u>
Receipt	1.12	1.43	1.53	1.95	2.00
Expenditure	1.32	1.41	1.74	1.90	2.00
2) Sixth 5 Year Plan - 1980-85 (Rs. in lakhs)	<u>1980-81</u>	<u>81-82</u>	<u>82-83</u>	<u>83-84</u>	<u>84-85</u>
Receipt	2.60	2.56	2.98	3.58	3.75
Expenditure	2.44	3.15	3.63	3.68	4.13
3) Seventh 5 Year Plan - 1985-90 (Rs. in lakhs)	<u>1980-81</u>	<u>81-82</u>	<u>82-83</u>	<u>83-84</u>	<u>84-85</u>
Receipt	5.01	5.89	7.78	8.95	10.00
Expenditure	5.15	5.96	8.01	8.42	9.01

## PHYSICAL PERFORMANCE

## C) Fifth Five Year Plan - 1975-80

	<u>1975-76</u>	<u>76-77</u>	<u>77-78</u>	<u>78-79</u>	<u>79-80</u>
1) Bus Kms. (in lakhs)	9.20	9.70	10.10	10.50	11.00
Percentage increase	—	5 %	4 %	4 %	5 %
2) No. of passengers transported (in lakhs)	2.10	2.50	2.80	3.00	3.50
%age increase	—	19 %	12 %	7 %	16 %
Goods transported (in lakhs tonnes)	0.99	1.04	1.09	1.13	1.18
%age increase	—	5 %	5 %	4 %	4 %

## D) SIXTH FIVE YEAR PLAN - 1980-85

	<u>1980-81</u>	<u>81-82</u>	<u>82-83</u>	<u>83-84</u>	<u>84-85</u>
1) Bus Kms. (in lakhs)	11.76	16.30	17.65	20.42	20.50
%age increase	—	39 %	8 %	16 %	4 %
2) No. of passengers transported (in lakhs)	3.97	4.25	4.29	5.36	5.40
%age increase	—	7 %	9 %	24 %	7 %
3) Goods transported in lakhs tones)	1.23	1.28	1.33	1.40	1.45
%age increase	—	4 %	4 %	5 %	4 %

## E) SEVENTH FIVE YEAR PLAN - 1985-90

	<u>1985-86</u>	<u>86-87</u>	<u>87-88</u>	<u>88-89</u>	<u>89-90</u>
1) Bus Kms. (in lakhs)	20.00	23.70	27.00	31.00	35.00
%age increase	—	18 %	13 %	14 %	13 %

	1985-86	86-87	87-88	88-89	89-90
2) No. of passenger transported (in lakhs)	6.50	7.50	8.50	10.00	12.00
%age increase	—	15 %	13 %	17 %	20 %
3) Goods transported (in lakhs tonnes)	1.50	1.55	1.77	2.00	2.30
%age increase	—	3 %	14 %	12 %	15 %

Keeping in mind the above performance record, the Eighth Plan will have to pay much greater attention to augmentation of fleet and modernisation of workshop infrastructure. The detailed schemes proposed are as follows:-

### 1. Augmentation & Replacement of fleet:

The fleet strength at the end of 5th, 6th & 7th Plans is tabulated below :

	End of 5th Plan (75-80)	Overaged (actual)	End of 6th Plan (80-81 to 84-85)	Overaged (actual)	End of 7th Plan (85-86 to 89-90)	Overaged
Buses (Nos)	56	7	91	16	142	29
Trucks (Nos)	130	35	150	32	210	67

#### 1.1. Augmentation :

Keeping in mind the 17% growth in traffic and 16% in bus traffic during the 7th Plan and taking into consideration the increase in utilisation in terms of passenger load and overall efficiency, the augmentation of the fleet is proposed to be made on modest scale. The shortfalls if any are to be made good by hiring private vehicles. Therefore, the need of augmenting the fleet during the 8th Plan works out as follows :

	1990-91	91-92	92-93	93-94	94-95	Total
Truck (10 percent on 210)	12	13	14	15	16	70
Bus (12 percent on 142)	10	11	12	13	14	60
						130

#### 1.2. Replacement :

Possessing the total required fleet strength for both passenger and good service is a must to cater to the demand of public in general and other services under the nationalisation policy.

The following table gives the figures of the number of vehicles that will be due for replacement during the 8th plan.

	1990-91	91-92	92-93	93-94	94-95	Total
Buses (Nos.)	29	10	17	16	17	89
Trucks (Nos.)	67	13	18	16	17	131
						220

#### 1.3. Total : augmentation & replacement:

	Augmentation	Replacement	Total	Cost per vehicle (Rs. lakhs)	Total (Rs. lakhs)
Trucks. (Nos.)	70	131	201	3.50	703.50
Buses (Nos.)	60	89	149	5.50	819.50
				Total :	1523.00

**NOTE :** During the 8th Plan period, it is proposed to go in for Container System for transportation of food commodities and other goods between Siliguri and Gangtok. This new mode of transport would curtail the transit loss and save time as it would not be necessary to wait for unloading as in the case of trucks. In the first year, it is proposed to go in for 15 Prime Movers with 30 containers. Thereafter, by the end of the Plan period, it is proposed to do away with trucks between Siliguri and Gangtok.

However, for internal transportation of goods within the State trucks will continue to be used.

The total fund thus required for augmentation and replacement comes to Rs.1523 lakhs during the 8th Plan.

## 2. NEW ROUTES :

There are number of new roads which has already been constructed and the public demand for plying vehicles is being pressed day by day. Hence in order to meet the genuine demand of the public opening of new routes has to be taken up on a selective basis.

The goods traffic is also increasing every year. In particular, the requirement of the Defence Authorities is quite substantial and has been remunerative.

We also intend to ply passenger services from Gangtok to Calcutta daily for which there is a good market. The intention is to run an Air Conditioned Coach with video facilities.

## 3. WORKSHOP INFRASTRUCTURE :

The development of a fully equipped workshops is essential for timely repairs, maintenance and proper upkeep of vehicles. Improvement in fleet utilization depends on the workshop infrastructure in terms of both technical manpower, physical facilities in workshops and availability of quality tested spares. Presently there are fairly well established workshops at Gangtok, Rangpo and Jorethang and mini-workshop at Rhenock. Establishment of workshops at other strategic points to cater to the need of unserved routes is felt necessary.

3.2. The main Central Workshop is being shifted from its existing location in Gangtok to Ranipool and the 1st phase of the project has already been started at an estimated cost of Rs. 114 lakhs. The 2nd phase of the project involving shifting of the Central Workshop and Stores will be completed physically by the end of 7th Plan. However in view of the budgetary limitations during the 7th Plan, it is estimated that liabilities to the extent of Rs. 90 lakhs will spill over to the VIIIth Plan.

3.3. The Rangpo workshop is an important facility for ensuring proper maintenance and upkeep of the vehicle. The physical facilities in this workshops requires to be improved considerably in terms of proper building infrastructure, technical manpower and equipments and machineries. This is proposed to be developed in the VIIIth Plan at a total cost of Rs. 30 lakhs.

3.4. Similarly, the workshop at Jorethang which is the main depot serving and South and West Sikkim has to be modernised and adequately equipped. For this purpose Rs. 10 lakhs has been proposed. To attend to maintenance and repair of vehicles plying within North and East Districts, it is proposed to establish workshops at Mangan and Rhenock at a cost of Rs. 5 lakhs each. Further, similar facilities at Geyzing, West District headquarter is proposed to be developed at a cost of Rs. 5 lakhs.

3.5. The overall outlay proposed for establishment of workshops facilities amounts to Rs.145 lakhs as per details below :-

1. Central Workshop,	
Ranipool	—Rs.90.00 lakhs
2. Rangpo Workshop	—Rs.30.00 lakhs
3. Jorethang Workshop	—Rs.10.00 lakhs
4. Mangan Workshop	—Rs. 5.00 lakhs
5. Rhenock Workshop	—Rs. 5.00 lakhs
6. Gyalshing Workshop	—Rs. 5.00 lakhs
	<u>Rs.145.00 lakhs</u>

In addition to the workshop facilities mentioned above there is considerable need for introduction of modern machines for the purpose of improving the performance levels. The list of such machines that need to be brought is given at Annexure A.

A. These are basically in terms of modern washing plant etc. and a total outlay of Rs.90 lakhs will be required for this purpose.

#### 4. BUS TERMINUS :

Gangtok town is already heavily crowded and bus traffic passing through the town creates considerable congestion. Already the workshop is being shifted and the present terminus near the Metro junction will also have to be shifted out. It is proposed to create one terminus to take care of North bound traffic and another terminus to take care of South bound traffic. Each of these terminus will have adequate parking facilities and minimum passenger amenities. The intention is to enable passengers to quickly get into their respective buses and undertake the travel they desire to their destinations. A provision of Rs. 2 crores will be required for this purpose. Similarly, terminus at Jorethang and Siliguri need upgradation and provision for minimum passenger amenities will be required and for this purpose an additional outlay of Rs. 50 lakhs is proposed.

#### 5. WAREHOUSING FACILITIES

At the moment for taking care of storage facilities there is only one godown at Siliguri. However if suitable storage capacity is created a great deal of time that is now lost in transportation to remote areas can be saved. The idea is to build godown at the strategic points so that goods can be brought from outside the State and stored at these points and internal distribution can be organised more systematically. Godowns need to be built at Gangtok, Melli Rangpo, and Siliguri and the cost are estimated to be Rs. 5 lakhs for Gangtok, Rs. 10 lakhs for Rangpo and Rs. 5 lakhs each for Melli and Siliguri. A total provision of Rs. 25 lakhs will be required for this purpose.

#### 6. BOOKING OFFICES :

In most of the booking offices there are no passenger amenities at all. There is a need for facilities as rain shelter, toilets, drinking water etc. and for this purpose a provision of Rs. 30 lakhs is proposed.

#### 7. EDUCATION AND TRAINING INCLUDING ROAD SAFETY DRIVE :

The programme for organising education and training for drivers including the public on road safety measures have been introduced

during the 7th Plan. The impact of this programme has been worthwhile and therefore it is proposed to continue this scheme during the 8th Plan. The target group for training will include apart from drivers, the personnel engaged in workshop, stores, traffic etc. A total provision of Rs. 10 lakhs has been proposed for this scheme during the 8th Plan.

#### 8. DIRECTION & ADMINISTRATION :

The level of management of the SNT will have to be considerably upgraded so that the operational efficiency of the organisation can be improved. It is proposed to appoint personnel in various specialised disciplines covering accounts, mechanics, inventory etc. The additional manpower requirements are proposed not only to take care of the existing deficiency in the organisational structure but also to meet the requirements of various new units that are proposed to be established during the 8th Plan. A total provision of Rs. 100 lakhs has been envisaged on this accounts. In addition to the above proposed outlay a specific provision of Rs. 10 lakhs has also been proposed in order to acquire computer facilities which will bring about perceptible improvement in the standard of management of the organisation.

The total proposed outlay during the 8th Plan in respect of Road Transport sector is summarised in the abstract below :-

(Rs. in lakhs)

	8th Plan Provision
1. Augmentation & Replacement	1523
2. Workshop infrastructures	235
3. Bus Terminus: Passenger Amenities	250
4. Warehouse facilities	25
5. Booking Offices	30
6. Road Safety and Training	10
7. Computerisation	10
8. Direction & Administration	100
Total :-	2183

ANNEXURE - A	
ITEMS	NUMBERS PROPOSED
1. Bus washing machine	2
2. Engine testing dynamo metre	1
3. Scanning machine	1
4. Tyre changing machine	2
5. Emission testing machine	5
6. Viscosity machine	5
7. Welding machine	3
8. Generator	2
9. Plate bending machine	1
10. Shearing machine	1
11. Leaf spring tampering	2
12. Degreasing machine	1

13. Wheel alignment machine	2	
14. Breakdown vehicle	1	
15. Miscellaneous replacement	5	(Lathe, drilling, bearing, testing bench etc).

Out of a total provision of Rs.2183 lakhs proposed in the Eighth Five Year Plan, Rs.416 lakhs has been earmarked for the Annual Plan 1990-91. Schemewise allocation is shown in statement GN - 2.

## DRAFT EIGHTH FIVE YEAR PLAN ( 1990-95 ) AND ANNUAL PLAN 1990-91

## HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE Statement GN-2

## DEPARTMENT : ROAD TRANSPORT (Rs. in Lakhs)

Code No.	Name of the Scheme/ Project	Seventh Plan Outlay (1985-90)	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which Capital content	Annual Plan 1990-91 Proposed Outlay	Of which capital content
1	2	3	4	5	6	7	8	9
107305300	ROAD TRANSPORT							
201	Sikkim Nationalised Transport							
	i) Direction & Adm.	50.00	55.79	18.00	100.00	..	15.00	..
	ii) Tools and Piants	30.00	26.82	7.00	90.00	90.00	14.00	14.00
	iii) Purchase of fleet	348.00	367.35	114.00	1523.00	1523.00	300.00	300.00
	iv) Workshop facilities	300.00	178.36	80.00	145.00	145.00	26.00	26.00
	v) Driver Training School new schemes	..	1.24	1.00	10.00	..	1.00	..
	vi) Bus Terminal Passen- ger Amenities	..	..	..	250.00	250.00	50.00	50.00
	vii) Ware house facilities	..	..	..	25.00	25.00	4.00	4.00
	viii) Booking Office	..	..	..	30.00	30.00	5.00	5.00
	ix) Computerisation	..	..	..	10.00	..	1.00	..
	Total	728.00	629.56	220.00	2183.00	2063.00	416.00	399.00
107307500								
60	Others	..	..	..	..	..	..	..
800	Helicopter Services	..	50.00	50.00	..	..	..	..
	Total	728.00	679.56	209.00	2183.00	2063.00	366.00	349.00

## Science & Technology & Environment

The importance of Science and Technology as an instrument for bringing about substantial improvements in living standards, increase in productivity and upgradation of technology in all walks of life has received considerable emphasis during the sixth and Seventh Plans. The involvement of State Governments in this effort has also received a good deal of attention. However in Sikkim it is only during the seventh plan that the activities connected with Science and Technology were taken up in a planned manner. The Planning and Development Department has been discharging the overall responsibility in this regard and has been acting through the Sikkim Science Society to implement programmes in this sector. Given the small size of the State and the fact that the activities were not really large, it was felt that constitution of a Science and Technology Council for the State would not be necessary. Further the talent available within the State was not adequate to man a Council of this nature. However, the Science Society has enlisted the cooperation of all technical departments of the State and has fully utilised the talent that is available in the Research and Development agencies of the Government of India, such as ICAR, The Botanical Survey of India, the Geological Survey of India, etc.

The dept. in collaboration with the Sikkim Society has been able to conceive and implement a number of programmes during the Seventh Plan period. The total outlay during the period amounted to Rs. 22 lakhs and during the period, the activities taken up included the following:

- (a) Assistance to the establishment of a small tissue culture laboratory,
- (b) Installation of direct satellite receiving sets in the district and sub-divisional headquarters,
- (c) Assistance to the establishment of a small mushroom spawn laboratory,
- (d) Opening of a technical library in Gangtok as well as a small medical library at Namchi,
- (e) Running of a number of awareness programmes tailored to meet the needs of rural population particularly in regard to environmental hygiene, health programmes, animal diseases and family planning.
- (f) Establishment of remote sensing application unit,
- (g) sponsoring studies in respect of pisciculture, medicinal plants, traditional medicines and promotion of Ham radio communication.

During the period, observance of the World Environment Day, World Food Day, Science Day were also organised on a regular basis and science exhibitions, debates and essay competitions etc. to encourage the students to develop interest in science were also undertaken.

During the Eight Plan, the activities in respect of Science and Technology will be considerably expanded. The programmes proposed to be taken up are as follows :-

### 1. DIRECTION AND ADMINISTRATION:

**Eighth Plan : Rs. 10 Lakhs**

**Annual Plan 1990-91 : Rs. 1.50 Lakhs**

It is proposed that a full fledged Science and Technology Department be created in the Sikkim Government. While the Special Commissioner-cum-Secretary, Planning and Development Department will continue to function as the Secretary, Science and Technology Department, in order to assist him, it is proposed to create a post of a Senior Scientific Officers with necessary Secretarial assistance. Further while the Sikkim Science Society will continue to function, a Science and Technology Council will also be constituted in the State. The Sikkim Science Society will have to be provided with one librarian and two Secretarial Assistants. An outlay of Rs. 10 lakhs is proposed for the purpose.



## 2. STATE SCIENCE LIBRARY :

**Eighth Plan : Rs.10 Lakhs**

**Annual Plan 1990-91 : Rs.1.50 Lakhs**

The Library which has been in existence for the past two years now is in a rented building but has received considerable attention from all those interested in scientific literature. It is proposed to shift the library to the premises earmarked for the State Museum where one segment will be apportioned for Science Museum-cum-Library. Considerable augmentation in the reading material is also necessary. Further the Sikkim Science Society is publishing a regular science newsletter and a journal of hill research. These publications will be continued and their circulation will be increased. For all these activities Rs. 10 lakhs is proposed.

## 3. SCIENCE AWARENESS PROGRAMME

**Eighth Plan : Rs.10 lakhs**

**Annual Plan 1990-91 : Rs.1.50 Lakhs**

As mentioned above, apart from conducting science exhibition, involvement of students in debates and essay writing on science matters, a regular programme of science field days is being organised in conjunction with departments such as Agriculture, Animal Husbandry, Health etc. in order to bring about awareness among the rural people of the benefits of science and technology in their everyday life. Full publicity materials, films and video shows, slide projections are also employed on a variety of topics including agriculture, hygiene, protection of animals, application of fertilisers, need to preserve the environment, tree plantation etc. These programmes have been very popular and need to be continued. Rs. 10 lakhs would be adequate for carrying on the programme during the Eighth Plan period.

## 4. FIELD RESEARCH PROJECTS :

**Eighth Plan : Rs.5 Lakh**

**Annual Plan 1990-91 : R.0.50 lakhs**

It is proposed to provide grants for undertaking specific research in areas which are of a particular interest to Sikkim. These include collection of information, specimens, conduc-

ting surveys and compilation of information. The main idea is to encourage students to take time off and devote themselves to constructive effort to bring about an improvement in the data base in the State. Rs. 5 lakhs is proposed for this purpose.

## 5. SCIENCE PROMOTION ACTIVITIES :

**Eighth Plan : Rs. 2 lakhs**

**Annual Plan 1990-91 : Rs. 0.50 lakh**

Once again in order to enthuse school children to take to more and more science education, specific effort is required by way of providing scholarships to meritorious students who take special interest in science. Already in the Seventh Plan period, 50 such scholarships have been provided to encourage science activities. It is proposed to increase the number to 100 students during the 8th Plan. A provision of Rs. 2 lakhs is proposed for the purpose.

## 6. ESTABLISHMENT OF LABORATORIES FOR DETECTING IODINE DEFICIENCY

**Eighth Plan : Rs. 7.50 lakhs**

**Annual Plan 1990-91 : Rs. 1.50 lakhs**

While there is a programme for goitre control in Sikkim, it has been noted that there are a number of cases which remain unreported and more importantly there is no system to investigate the possibility of iodine deficiency among children and taking adequate measures at the initial stage itself so that the possibility of children getting goitre and other diseases is avoided. For this purpose a special laboratory has become necessary, the details of which are indicated below :

### PROVISION OF RADIO IMMUNE

### ASSAY FACILITY (RIA) :

This facility is needed to undertake iodine intake study among children. It is proposed to have an automated RIA System (single tube counter with manual system) at an estimated cost of Rs. 5 lakhs.

Further, a single strip Elisa reader with printer costing Rs. 50 thousand will be procured. A provision of Rs. 75 thousand is earmarked for all the ancillary equipments and to take care of some office expenses. A computer with a printer costing Rs. 1 lakh 25 thousand is proposed to be brought for recording of relevant data on iodine deficiency.

In all, a provision of Rs. 7.50 lakhs is proposed for the purpose.

#### 7. TISSUE CULTURE LABORATORY WITH PARTICULAR EMPHASIS ON ORCHID MULTIPLICATION :

**Eighth Plan : Rs. 75 lakhs**

**Annual Plan 1990-91 : Rs. 12 lakhs**

Sikkim has a rich variety of orchids but so far there has been no systematic effort to prepare a complete inventory of the types of orchids that grow in Sikkim. their characteristics, agro climatic conditions under which they thrive and evolution of methods to improve their growth and propagation capabilities as also their capacity for endurance. There has been a very big increase in demand for orchids not only in local markets but abroad as well.

Under natural conditions the propagation of orchid is a very slow process. Tissue culture techniques can help in much more rapid multiplication of atleast some of the selected species. The plant material will be taken up from dividing cells such as the leaves tips etc. and induce multiplication under aseptic conditions to form a mass of cells called callus. This can be further multiplied by using a variety of media compositions and portions of callus can be differentiated to form leaves and roots. This will have to be again grown under controlled conditions before transferring to the field. This methodology is known as clonal propagation and can help in producing identical plants on a large scale. Further experimentation and manipulations from hybrid orchids can also be attempted. It is proposed to establish a full fledged tissue culture laboratory which can not only take care of the orchids but also plants such as bamboo with a view to study their growth and propagation, characteristics and bring about substantial improvements. The requirements would be of the following order :-

- |  |   |             |
|--|---|-------------|
| i) Building  | — | Rs.20 lakhs |
| ii) Equipment for the laboratory such as centrifuge, autoclaves, incubators, refrigerator etc. | — | Rs.20 lakhs |
| iii) Insulation, air conditioning and essential furnitures and fixtures                        | — | Rs. 7 lakhs |
| iv) Training of personnel  | — | Rs. 5 lakhs |
| v) Vehicle for field trials  | — | Rs. 2 lakhs |
| vi) Chemicals and glass-wares  | — | Rs.10 lakhs |
- Manpower required would be as follows :

Scientist	1
Research Assistant	2
Technicians	4

A total provision of Rs. 75 lakhs is proposed for this project.

#### 8. REMOTE SENSING APPLICATION :

**Eighth Plan : Rs.80 lakhs**

**Annual Plan 1990-91 : Rs. 12 lakhs**

As already mentioned, a Remote Sensing Application Centre has been established in Sikkim. Consultations have been held with National Agency of Remote Sensing at Hyderabad with a view to upgrading these facilities to serve the State adequately. There is no separate manpower provided for this cell and during the Eighth Plan, it is proposed to upgrade the facility to serve the requirements of the departments such as Agriculture, Land Use and Environment, Irrigation, Forest, Rural Development etc.

The facility will be utilised in areas such as forest mapping, water shed surveys, targeting of ground water potential zones, water resources surveys including snow cover and snow melt studies, ecological and environmental studies etc. The requirements for upgradation of the facilities are :

- |                            |   |             |
|----------------------------|---|-------------|
| i) Equipments              | — | Rs.30 lakhs |
| ii) soft wares             | — | Rs. 4 lakhs |
| iii) Training of personnel | — | Rs. 2 lakhs |

iv) Furniture, literature, etc.	—	Rs. 2 lakhs
v) Emoluments of personnel	—	Rs. 20 lakhs
vi) Procurement of remote sensing data and aerial surveys	—	Rs. 20 lakhs
vii) Miscellaneous expenses	—	Rs. 2 lakhs

A total provision of Rs. 80 lakhs is proposed for this effort.

Out of a total provision of Rs. 199.50 lakhs proposed in the Eighth Five Year Plan for Science & Technology sector, Rs. 31.00 lakhs has been earmarked for the Annual Plan 1990-91. Schemewise allocation is detailed in GN-2 statement.

## DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN 1990-91

## HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE

Statement GN-2

## DEPARTMENT : SCIENCE &amp; TECHNOLOGY

(Rs. in Lakhs)

Code No.	Name of the Scheme/Project	Seventh Plan Outlay (1985-90)	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which Capital content	Annual Plan 1990-91 Proposed Outlay	Of which capital content
1	2	3	4	5	6	7	8	9
109000000	IX. SCIENCE & TECHNOLOGY & ENVIRONMENT							
109342560								
001	Direction & Admn.	—	—	—	10.00	—	1.50	—
004	Research & Development	22.00	17.00	10.00	102.50	—	15.50	—
	i) State Science Library				10.00	—	1.50	—
	ii) Field Research Projects				5.00	—	0.50	—
	iii) Research on Iodine Deficiency				7.50	—	1.50	—
	iv) Remote Sensing Application				80.00	—	12.00	—
800	Other Expenditure				87.00	—	14.00	—
	i) Science Awareness Programme				10.00	—	1.50	—
	ii) Science Promotion				2.00	—	0.50	—
	iii) Tissue culture Lab.				75.00	40.00	12.00	10.00
	Total	22.00	17.00	9.50	199.50	40.00	31.00	10.00

## 1. ENVIRONMENTAL PROGRAMMES

1. Although the State of Sikkim enjoys a relatively better ecological status than, many other states, the rising population, spread of urban areas, the fast pace of development activities etc. have all started having an impact on the environment. The threats posed by these developments have to be taken note of and conservation measures initiated so that any further deterioration is stopped and the ground that has been lost is recovered as fast as possible. The environmental programmes in Sikkim is designed to take care of these concerns. The responsibilities in this regard are taken care of by the environmental cell, which functions under the overall supervision and control of the Forest Department. This is in recognition of the fact that the forests in the state have a vital role to play in preserving the ecological status of the region. Any deterioration in the area under green cover, can, itself cause serious damage to the ecology and the prime, concern of the state is therefore not only to preserve the area under green cover but also bring about an expansion in the area while doing the utmost to satisfy the demands of the population as regards fuel wood, timber etc. No doubt efforts to spread the use of alternative fuels and substitutes of wood as construction material are also of great importance. The effort therefore, is to coordinate the activities relating to environmental protection and conservation with those of the Department of Forests, land use, as well as new and renewable sources of energy.

2. The Air and Water pollution Acts, as well as the Forest Conservation and Environment protection Acts have been enforced in the state of Sikkim. While water pollution except in some of the lakes in the higher altitudes has not been a serious problem, due to the absence of industries which discharge harmful effluents into waters, air pollution is caused primarily by automobile emissions. This has started becoming a problem and steps need to be taken immediately for tackling this.

3. Environmental protection and control activities, were initiated in a planned manner in Sikkim only during the 7th Plan and the outlay for the total five year period was fixed at Rs. 58 lakhs. The main activities undertaken relate

to creation of biospheres, setting up of parks and gardens, publicity, involvement of schools in environment protection and sanitation improvement in areas frequented by large number of visitors such as monasteries etc. In the programmes implemented during the period, creation of a pinetum at Gangtok, Botanical Garden at Rumtek for conservation of a vast variety of plants which have started becoming rare in Sikkim, are notable. In the Botanical Garden glass house cultivation has also been undertaken.

4. With the experience gained during the Seventh Plan and taking into account some of the major problems in the field of environment that Sikkim is likely to face, the programmes to be taken up during the Eighth Five Year Plan will not only consolidate and expand the earlier schemes but also specifically deal with the threats that have been identified. The proposals are discussed below:

### (I) WETLAND CONSERVATION PROGRAMME:

**Eighth Plan : Rs. 100 lakhs**

**Annual Plan 1990-91 : Rs. 15 lakhs**

In Sikkim there are more than 100 lakes, big and small located primarily in the upper temperate and alpine regions of the state and form a vital part of the ecosystem. These lakes also are the source of some of the perennial streams and rivers which flow through the state. They contain valuable aquatic life and have been acting as filters for sediments.

For quite sometime now these lakes have started showing signs of degradation, primarily because of pollution caused by human and animal interference and road construction activities, building activities etc. Very often these lakes are being used for disposing of all kinds of wastes. If these activities go unchecked we may face a serious situation. It is therefore proposed to take up a major programme of wetland conservation during the Eighth Plan, primarily in the East and North districts of Sikkim. The major steps contemplated are as follows:

- a. survey and demarcating of wetland areas.

- b. survey of aquatic fauna and flora in and around the lakes
- c. the study of the status of the catchment areas of the lakes
- d. protection measures such as fencing, desiltation and treatment of the lakes as well as catchment areas with appropriate soil conservation and afforestation measures, to control of pollution in the areas and
- e. drawing up of management plans for each of the wetland.

An outlay of Rs.100 lakhs is proposed for the above mentioned programme.

**(II) BOTANICAL GARDEN AT RUMTEK**  
**Eighth Plan : Rs. 20 lakhs**  
**Annual Plan 1990-91 : Rs. 3 lakhs**

During the Seventh Plan measures were taken to create a botanical garden at Rumtek covering an area of 30 hectares primarily with the objective of creating a conservation area for a variety of plant species which were becoming rare and were facing possible extinction. One Glass House has also been constructed. Out of the 30 hectares some 20 hectares has been now developed with footpaths, terrace etc. During the Eighth Plan it is proposed to construct a larger glass house, providing watering facilities and expand the areas to cover the full 30 hectares. Some facilities for tourists will also have to be provided as the area is near Rumtek monastery and attracts a large number of visitors. A provision of Rs.20 lakhs is proposed for this programme.

**(III) TRAINING OF JHORAS:**  
**Eighth Plan : Rs. 100 lakhs**  
**Annual Plan 1990-91 : Rs.15 lakhs**

Gangtok town has grown enormously in the past 5-10 years and with a large number of multistoreyed buildings. This unplanned growth has resulted in flooding of some of the internal drains. During the rainy season large volume of water that comes down finds its way into the channels which are open but with the volume of discharge of being much more than what the channels can handle, has resulted in stagnation of water in some areas while in others the discharge has eroded the banks, destabilising areas and generally contributing

to soil run off and instability. It is therefore becoming necessary to train these channels, known locally as jhoras, so that soil erosion is stopped and water is discharged in a regulated manner. Further a lot of refuse also gets into these jhoras. Measures to remove these pollutions needs to be taken. The measures contemplated include construction of pucca drains, bank protection regulation of slopes, plantation on the hill sides etc. These measures are particularly required for the jhoras which come down from Gangtok town and go along the Gangtok bypass road, up to the river bed. The outlay proposed is Rs.100 lakhs.

**(IV) IMPLEMENTATION OF AIR AND WATER POLLUTION ACTS:**  
**Eighth Plan : Rs. 30 lakhs**  
**Annual Plan 1990-91 : Rs. 4.50 lakhs**

Even though both these acts have been applied to Sikkim a proper machinery to implement the acts, enforce their provisions and achieve concrete results have not so far been taken in Sikkim. It is proposed to establish a Pollution Control Board in the state with the necessary supporting staff. Further it is also proposed to set up a laboratory particularly, to deal with water pollution problems. The question of laying down emission standards, equipment to test automobiles, particularly lorries will also be taken up during the Eighth Plan.

It is estimated that a provision of Rs.15 lakhs will be required for setting up a laboratory and install pollution control and testing facilities particularly for air pollution. Creation of posts and administrative support will require another Rs.15 lakhs for five years period. A total provision of Rs.30 lakhs will be required for this programme.

**(V) TREATMENT OF CATCHMENT AREAS OF URBAN WATER SUPPLY SCHEMES**  
**Eighth Plan : Rs. 10 lakhs**  
**Annual Plan 1990-91 : Rs. 1.50 lakhs**

Most of the sources of water supply in Sikkim for the urban areas are streams and rivolutes and in some cases small lakes. It has been noticed that these areas have suffered considerable degradation due to felling of trees and a noticeable decline in the volume of discharge

particularly in the winter season has already taken place. It is therefore necessary to immediately take up measures for catchment area treatment to conserve the water sources. During the Eighth Plan Gangtok and three other major towns will be taken up with an outlay of Rs. 10 lakhs.

#### (VI) ENVIRONMENTAL EDUCATION

**Eighth Plan : Rs. 30 lakhs**

**Annual Plan 1990-91 : Rs. 5 lakhs**

This is a vital programme in any environment conservation activity. A programme to educate the people of the serious consequences of environmental degradation, deforestation, soil erosion etc. needs to be undertaken if they are to be weaned away from the present dependence on the fuel wood as the source of energy and actively participate in programmes for preserving the green cover. Environmental hygiene, sanitation, refuse discharge, conversion of refuse into farm manure, maintenance of the cattle population in hygienic conditions. Child health care etc all form elements of this programme. Besides automobile drivers particularly of the Sikkim National Transport of the Govt. etc. need to be educated as regard automobile pollution. An on going programme of awareness and education needs to be taken up on a large scale with audio-visual aids, exhibits, camps, posters etc. This will be a multi disciplinary effort involving Departments of Forest, Agriculture Health and Animal

Husbandry. The Sikkim Science Society will also be fully involved. Particular attention will be paid to rural areas. Schools will be encouraged to establish gardens, with active involvement of the children in plantation activities. The Education Department's cooperation will be enlisted. Total provision of Rs. 30 lakhs is proposed for this programme.

#### (VII) ESTABLISHMENT OF GERM

##### PLASM BANK/GENE SANCTUARIES

**Eighth Plan : Rs. 5 lakhs**

**Annual Plan 1990-91 : Rs. 1 lakh**

It is apprehended that several species of plants which have got good genetic potential are facing extinction, due to interference both human and biotic. It is necessary to see, that specimens for such plants are collected and made to grow in ideal conditions so that they are not lost to posterity. It is necessary to undertake a comprehensive survey of such plants, collect specimens and preserve them in a central facility. The idea is to generate in the course of the time a sufficiently large stock so that the species can be re-introduced into their natural habitat. The outlay proposed for this scheme is Rs. 5 lakhs.

The total provision of Rs. 295 lakhs is proposed for the Eighth Plan for the above mentioned programmes.

DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN - 1990-91

HEADS OF DEVELOPMENT :      OUTLAY AND EXPENDITURE      Statement GN-2

DEPARTMENT :      ECOLOGY AND ENVIRONMENT      (Rs. in lakhs)

Code No.	Name of the Scheme/ Project	Seventh Plan Outlay 1985-90	Expen- diture 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which capital content	Annual Plan 1990-91 Proposed Outlay	Of which capital content
1	2	3	4	5	6	7	8	9
109343560	ECOLOGY & ENVIRONMENT							
03	Environmental Research & Ecological Regeneration							
003	Environmental Education	..	..	..	30.00	..	5.00	..
101	Conservation Programme	..	..	..	110.00	..	16.50	..
	(i) Wet land conservation	..	..	..	100.00	..	15.00	..
	(ii) Treatment of catchment Area of Urban Water Supply Programme	..	..	..	10.00	..	1.50	..
103	Establishment of Germ Plasma Bank/Gene sanctuaries	..	..	..	5.00	..	1.00	..
04	Prevention & Control of Pollution							
103	Implementaion of Air & Water Pollution Act	..	..	..	30.00	..	4.50	..
60	Others							
800	Other Expenditure				120.00	..	18.00	..
	(i) Botanical Garden at Rumtek	..	..	..	20.00	..	3.00	..
	(ii) Training of Jhoras	..	..	..	100.00	..	15.00	..
	(iii) Assistance to other Organisation	58.00	33.07	21.00	..	..	..	..
	<b>Total</b>	<b>58.00</b>	<b>33.07</b>	<b>21.00</b>	<b>295.00</b>	<b>..</b>	<b>45.00</b>	<b>..</b>



## General Economic Services

### A. SECRETARIAT ECONOMIC SERVICES

**Eighth Plan: Rs. 280 Lakhs**

**Annual Plan 1990-91 : Rs. 54 Lakhs**

1. The various functions pertaining to plan formulation, appraisal, monitoring and evaluation are undertaken by the Planning and Development Department. Given the small size of the State and the population there is no State level apex body as the State Planning Board. Consistent with the progressive enlargement of the plan size over the years as also the many sided expansion of the development activities taking place, the organisational set up needs to be progressively strengthened with manpower specially trained in the relevant disciplines. This process of upgrading and strengthening the State Planning machinery has already been taken up under the purview of the Centrally Sponsored Scheme. During the latter part of the VIIIth Plan certain posts covered under the sanction for this scheme, have been filled up and gradually, the hitherto neglected functional areas relating to evaluation, appraisal and district planning are being taken care of. However in order to upgrade the expertise for ensuring high quality planning and developing expertise periodical in-service training organised by renowned institutes in the country will have to be taken advantage of Computer facilities for generating and processing data is also proposed to be acquired.

2. At the district level also there is no apex body in the nature of a District Planning Board. The only recognised institution at the district level are the District Coordination Committees which are entrusted with the function of suggesting district priorities; reviewing of plan implementation and also sanctioning schemes subject to certain financial ceilings prescribed by the Government. Pursuant to the recent policy decision adopted by the Government of India in regard to institutionalisation of the Panchayat Raj administration, it is proposed to shift the existing responsibilities and functions of the District Coordination Committees to the Zilla Panchayats. The Zilla

Panchayats will be adequately represented by all sections of the Community including the District level Development Officers of all departments and will be chaired by an elected representative from among the existing Panchayat Presidents of the concerned district. The entire scenario as far as plan formulation, implementation and monitoring is concerned is therefore expected to be transformed with the constitution of the Zilla Panchayats. The modalities for implementation of this policy decision as also the determination of the powers, responsibilities and extent of involvement of the Panchayat bodies in the development administration at the grass root level are being formulated. The entire scope of planning activities at the District level will receive a fillip and accordingly the State level planning set up, which has within it a small cell, to take care of formulation of district plans, will have to be geared up to cope up with these developments. The State did not deem it prudent to set up a district planning organisation in each of the four districts mainly for reasons such as smallness in size of the State and dearth of manpower with required expertise. The Planning Commission had, under the circumstances, agreed that in the process of strengthening the State Planning Machinery the requirements for district planning be taken into cognizance and a district planning cell created exclusively to handle these functions. This cell is proposed to be progressively strengthened during the VIIIth Plan by creating specialised posts. The process of strengthening the organisational set up is proposed to be partly funded under the purview of the Centrally Sponsored Scheme. Details depicting the manpower requirements for State and District Planning as envisaged during the VIIIth plan vis-a-vis the existing strength have been indicated in the concluding portion of this sub-section.

3. Another component under this sub-section is that relating to provision of untied funds exclusively at the disposal of the District Collectors. The intention of this scheme is to bring about more active involvement of

the Collectors in development administration within their respective districts. At the moment, the Collectors are by and large involved in matters other than development administration. With the inclusion of this scheme, the Collectors have now been made to play a more dynamic role in development matters and gradually with their exposure to these functions, they have been able to build up skill and experience in undertaking plan formulation as also coordinating, monitoring, and reviewing the development activities taking place in their respective districts. The type of schemes so far implemented under this scheme are generally of a very specific nature and of relevance to the conditions prevailing in each District.

4. The concept of decentralisation of planning at the District level has been given considerable importance and therefore, during the VIIIth plan major strides will be taken to implement district planning in a more vigorous and meaningful manner. Towards this end in view, a series of workshops on district planning had been organised at the State level involving participation of the State and district level representatives from various development departments including the Collectors. These workshops offered a useful forum to deliberate on pertinent issues as also elicit opinions and views of all concerned. Following the decisions concluded in these workshops and duly keeping in mind the general guidelines issued by the Planning Commission in respect of district planning, detailed instructions have been circulated to all District Collectors as well as to the Development Departments at the State headquarters and the districts. The State Government have also endorsed and formally approved the specific recommendation of the workshop which seeks to underline the power and responsibility of the Collectors in matters involving development administration. With these developments taking place, it is expected that the quantum of untied funds will need to be substantially increased. It is proposed to bring about a two fold increase in the amount of untied funds for each District from the level of Rs. 4.50 lakhs during the year 1989-90 to Rs. 10.00 lakhs during 1990-91. The outlay thereafter is proposed to be progressively increased depending on the requirements

projected by each District Collector. For the VIIIth plan a total outlay of Rs. 200 lakhs has been proposed accordingly. In order to enable the Collectors to effectively perform the functions entrusted to them, it is proposed to provide basic secretarial support and for which purpose certain posts have been contemplated for which Rs. 7.50 lakhs for each district has been proposed during the plan. The total outlay proposed for this purpose is Rs. 30 lakhs for the VIIIth plan with Rs. 7.50 lakhs during 1990-91. Matching funds from the Central Government is also envisaged as this scheme would form part of the Centrally Sponsored Scheme of strengthening the Planning Machinery at the District level.

5. The details of the outlay proposed during the VIIIth plan and the annual plan for the various schemes elaborated above are indicated in the table below :-

Name of Scheme	VIIIth plan proposed outlay	1990-91 proposed outlay
1. Strengthening of Planning machinery at the State level.	50.00	6.50
2. Strengthening of Planning machinery at the District level.	30.00	7.50
3. Untied funds	200.00	40.00
	280.00	54.00

#### A. STATE PLANNING MACHINERY

	Present Strength	Proposed Strength	Total Strength
1. Special Commissioner	1	—	1
2. Additional Development Commissioner	1	—	1
3. Joint Director	1	—	1
4. Joint/Deputy Secretary	1	—	1
5. Planning Officer	1	—	1
6. Project Appraisal Officer	—	1	1
7. Evaluation Officer	—	1	1
8. Under Secretary	1	—	1
9. Research Officer	2	2	4
10. Adm. Officer	—	—	—
11. Office Supdt.	1	—	1
12. Research Asstt.	—	4	4
13. Stenographer (Grade I)	1	—	1

14. Stenographer (Grade III)	4	1	5
15. Accountant	—	1	1
16. L.D.C.	1	—	1
17. Jr. Accountant	1	—	1
18. L.D.C.-Typist	3	1	4
19. Driver	6	1	7
20. Gestetner Operator	1	—	1
21. Peon	5	2	7
<b>TOTAL :- (A)</b>	<b>39</b>	<b>8</b>	<b>47</b>

## B. DISTRICT PLANNING MACHINERY

1. District Research Officer	—	4	4
2. Research Asstt.	—	4	4
3. Steno/Typist	—	4	4
<b>TOTAL : (B)</b>	<b>—</b>	<b>12</b>	<b>12</b>
<b>GRAND TOTAL : (A + B)</b>	<b>39</b>	<b>20</b>	<b>59</b>

## B. SURVEY AND STATISTICS

**Eighth Plan : Rs.77.50 Lakhs**

**Annual Plan 1990-91 : Rs. 12 Lakhs**

1. The Bureau of Economics and Statistics operating under Planning and Development Department functions as the focal agency of the Government with regard to collection, compilation, analysis, and dissemination of information and data relating to all aspects of the state's Economy. It also co-ordinate all matters relating to build up of an adequate data base in the State and tenders advice on matters relating to this area of activity to all departments of the Government.
2. During the 7th Five Year plan attempts were made to strengthen the statistical data base on price and on State income and related statistics while continuing the activities under Registration of Births and Deaths and collaboration with N.S.S.O. in undertaking special surveys. The activities of the Bureau was further extended to the field of evaluation studies on a wide variety of subjects, Budget analysis and monitoring of development programmes.

The Bureau has also been actively involved in the preparation of the annual plans, the five year plan and in the mid term appraisal of the 7th plan.

3. The accent during the 8th five year plan will be (i) to further strengthen the statistical data base on matters such as public finance, (ii) strengthen the tabulation unit (iii) Establishment of District Statistical Offices. Continuation of the existing scheme is also envisaged. The schemewise details are as under :

### (a) COLLABORATION WITH NATIONAL SAMPLE PROGRAMME

**Eighth Plan : Rs. 30 Lakhs**

**Annual Plan 1990-91 : Rs.5 Lakhs**

This is a Centrally Sponsored Scheme on 50 : 50 - sharing basis. The Bureau is participating in the All India Programme of National Sample Survey since the 37th round and at present 44th round survey is in progress. For this effort the manpower available consists of just two computers. Because of non availability of sufficient man power and equipment, tabulation is often delayed. During the eighth plan it is proposed to augment the resources for expediting the tabulation process. The Bureau has already procured a PC/AT computer with 80 MB capacity. This is not sufficient to carry out the entire work of tabulation undertaken by Bureau. It is therefore proposed to install additional PC's so that an integrated system is established. Further two posts of computers will be also required to be created. An outlay of Rs. 30.00 lakhs is proposed for continuation of the existing programme and creation of additional posts and equipment mentioned above, during eighth plan.

### (b) REGISTRATION OF BIRTH AND DEATH

**Eighth Plan : Rs.11.50 Lakhs**

**Annual Plan 1990-91 : Rs.1.75 Lakhs**

This is a continuing centrally sponsored scheme on a 75 : 25 sharing basis. Though there were a number of problems to begin with the civil registration system is now getting established. The recent efforts have geared up the machinery and adequate publicity measures already taken are expected to yield positive results in the near future. An amount of Rs. 11.50 lakhs is proposed for this scheme, as the State's share.

## (c) SETTING UP OF PUBLIC FINANCE CELL

**Eighth Plan : Rs. 6 Lakhs****Annual Plan 1990-91 : Rs. 0.75 Lakhs**

At the moment with the very limited resources at the disposal of the Bureau of Economic and Statistics a publication entitled "Budget at a Glance" is being brought out, analysing the budget of the State. However this effort has been supplemented by a continuous analysis of expenditure trend on a periodic basis, economic and finance classification of the budget, the capital formation trends and other related matters. For this purpose it is proposed to create the post of an Assistant Director supported by two Technical Assistants and 1 Typist. An outlay of Rs. 6 lakhs is proposed for this effort.

## (d) DISTRICT STATISTICAL OFFICE

**Eighth Plan : Rs.10 Lakhs****Annual Plan 1990-91 : Rs.1.50 Lakhs**

With the accent on decentralisation and building up data base for micro-level planning, the process of setting up District Statistical Office cannot be delayed. The staffing pattern envisaged is one Statistical Officer, two Technical Assistants, three investigations and one Computer and one peon. It is proposed to provide one Technical Assistant and one Investigator from the existing staff in the Bureau. To meet the requirements an outlay of Rs. 10.00 lakhs is proposed for the eighth plan period.

## (e) BUREAU OF ECONOMICS AND STATISTICS

**Eighth Plan Outlay: Rs. 40.00 Lakhs****Annual Plan 1990-91 : Rs. 6.00 Lakhs**

The outlay proposed under the scheme is essentially meant for meeting part of the establishment cost of the Bureau. The anticipated expenditure during the 8th Plan period is Rs. 20.00 lakhs. The Bureau at present is housed in a private rented building. The

feasibility of having its own separate building has been examined but due to paucity of suitable land and resource constraints it is proposed to contribute Rs.20.00 lakhs to the common pool for construction of a separate secretariat building where sufficient floor space will be provided in a compact area to accommodate all its requirements of the State Headquarter. An outlay of Rs. 40.00 lakhs is proposed for the purpose.

## (f) STATE INCOME UNIT

**Eighth Plan Outlay : Rs. 20.00 lakhs****Annual Plan : Rs. 3.00 lakhs**

The unit has started functioning and estimates on SDP have already been brought out upto the year 1986-87. The scheme is required to be continued and an amount of Rs. 20.00 lakhs is required during 8th Plan.

The total outlay proposed for the 8th Five Year Plan therefore comes to Rs. 117.50 lakhs.

## C. WEIGHTS &amp; MEASURES

**Eighth Plan : Rs. 22 Lakhs****Annual Plan 1990-91 : Rs. 4 Lakhs**

Weights and Measures Cell attached with the Food & Civil Supplies Department is entrusted with the responsibility of enforcing the Weights & Measures Act in the State. With the increasing number of bazars coming up in recent years, it is essential to equip the cell with adequate manpower and instruments for keeping strict vigil on shopkeepers. To meet this requirement an outlay of Rs. 22 lakhs is proposed for the Eighth Plan period.

Out of a total combined provision of Rs. 379.50 lakhs for the general Economic services sector for the Eighth Plan, Rs. 70.00 lakhs has been earmarked for the Annual Plan 1990-91. Schemewise allocation is detailed in GN-2 statement.

## DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN 1990-91

## HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE

Statement GN-2

## DEPARTMENT : GENERAL ECONOMIC SERVICES

(Rs. in Lakhs)

Code No.	Name of the Scheme/Project	Seventh Plan Outlay (1985-90)	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which Capital Content	Annual Plan 1990-91 Proposed Outlay	Of which capital content
1	2	3	4	5	6	7	8	9
11000000	GENERAL ECONOMIC SERVICE							
090	Secretariat New Schemes	76.00	15.76	4.50	—	—	—	—
	i) Strengthening of Planning Machinery of the State level	—	5.48	5.50	50.00	—	6.50	—
	ii) Strengthening of Planning Machinery at the District level	—	—	—	30.00	—	7.50	—
	iii) United Funds	—	36.28	18.00	200.00	—	40.00	—
	Total	76.00	57.52	28.00	280.00	—	54.00	—
110345400	Surveys & Statistics							
111	Vital Statistics (Registration of Birth and Death)	5.00	4.75	1.50	11.50	—	1.75	—
112	Economic Advice & Statistics	7.00	6.05	2.50	40.00	20.00	6.00	3.00
201	State Income Unit	8.00	—	2.50	20.00	—	3.00	—
800	Other Expenditure							
	i) Collaboration with National Sample Survey Programme	12.00	12.56	4.50	30.00	—	5.00	—
	ii) District Statistical Office	8.00	2.15	1.50	10.00	—	1.50	—
	iii) Timely Reporting Scheme	5.00	—	—	—	—	—	—
	iv) Public Finance Unit	—	—	—	6.00	—	0.75	—
110347560	Other General Economic Services							
To6	Weights & Measures	22.00	17.50	3.80	22.00	—	4.00	—
	Total	143.00	100.53	4.30	419.50	20.00	76.00	3.00

## CHAPTER XIX

**Tourism**

1. Given the salubrious climate, the natural beauty and the fine cultural heritage in Sikkim, growth of tourism has immense possibilities. During the 7th Plan this has been identified as a growth area and considerable improvements have been brought about in the creation of facilities, establishing transportation links and promoting Sikkim as a tourists' destination. Adventure tourism has been given considerable importance. The fact that growth in tourism does not require a high order of skill and on the other hand has the potential for creating a large number of jobs has also been taken into account. Tourism's potential in promoting national integration and greater understanding among various segments of the community has also been recognised.

The achievements during the VIIth Five Year Plan are:

- a) Construction of tourists' facility at Rangpo at a cost of Rs. 38 lakhs;
- b) Sanction of a Yatri Niwas at Gangtok;
- c) Construction of trekking huts at Zongri, Barsey, Yoksom, Tshoka, Tashiding, Khecheperi and Pemayangtse;
- d) Purchase of Hotel Mayur to be run as a major tourist hotel;
- e) Construction of observatory Tower at Namchi;
- f) Construction of way side ammenities at Phodong, Chungthang and Lachung;
- g) Construction of a pilgrim hut at Khecheperi.

Besides these promotion of adventure tourism including river rafting was taken up and package tours to Yumthang and Changu Lake were introduced.

## 2. EIGHTH FIVE YEAR PLAN

While Sikkim has a very large number of tourist attraction particularly the snow clad mountains, the lakes and unspoilt forest areas and valleys of flowers, a major problem has been the restriction on travel particularly as regards foreigners. In view of this the number of foreigners coming to Sikkim has been only around 3000 to 4000. This number can be very substantially increased and valuable foreign exchange

earned by the country. Advantage can also be taken of the fact that there are some very fine monasteries in Sikkim and Buddhist tourists from Japan, the South East Asian countries etc. can be encouraged to come to Sikkim. The issue of relaxation of the present restrictions has been taken with the Ministry of Home Affairs and it is likely that the restrictions will be substantially reduced and the flow of foreigners increased. However it is necessary to approach this problem with a degree of caution, as it is undesirable to spoil the natural splendour and rich cultural heritage of Sikkim by promoting tourism on an unwarrantedly large scale. The intention should be to attract only a limited number, making tourism to Sikkim a fairly expensive proposition so that we have a bias in favour of quality rather than quantity. Similarly in regard to domestic tourists also while there is scope for considerable expansion, it must be gradual and regulated. At the moment we have approximately 30,000 domestic tourists coming to Sikkim and the number can be doubled by the end of the VIIIth Plan period.

3. While the growth in tourism as indicated above would call for augmentation of facilities in and around Gangtok, and increasing the areas of entertainment and leisure activities, it is also necessary to open up some of the other more interior areas to tourists. For this purpose transportation facilities from Gangtok to the other districts will have to be improved and necessary facilities created in attractive spots so that tourists can look forward to such visits. In particular trekking facilities need to be upgraded and those who are interested can be given a package tour ranging over 7 to 15 days. Nature lovers particularly those interested in the large number of flora and fauna of Sikkim should also be encouraged and for this purpose a well advertised publicity campaign will be required.

With the above objective in mind the following proposals have been formulated:-

4. **DEVELOPMENT OF TOURIST CENTRES**  
**Eighth Plan: Rs. 590 lakhs**  
**Annual Plan 1990-91 : Rs. 85 lakhs**

Hotel accommodation in Gangtok is more or

less adequate and the building up of the Yatri Niwas will further improve accommodation. However apart from trips to the Rumtek to see the Monastery and to Saramsa to see the orchid garden, there are really no other serious attractions for tourists to spend the time in and around Gangtok. It is therefore proposed to develop various Centres for recreation in and around Gangtok as well as in other places. List of schemes identified for such development work has been summarised below :-

**A. RESTAURANT-CUM-CONFERENCE FACILITY**

**Eighth Plan: Rs. 150 lakhs**

Restaurant - cum-conference facilities in the area where the tourist lodge is presently located. The Forest Department is already establishing a 50 acre pinetium here and above this area a zoological park is also being planned. In order to enable the tourists to relax after walking around these areas it is proposed to build a large sized restaurant with a panoramic view of the Kanchenjunga covered with plateglass, with a built-in facility for conferences to cater to a capacity of upto 50 people. It is expected that creation of such a facility will attract public sector undertakings, big commercial banks and other institutions to hold their Conferences in Gangtok. Total provision of Rs. 150 lakhs has been proposed for this project.

**B. SKATING RINK AND AMUSEMENT PARK**

**Eighth Plan: Rs. 30 lakhs**

The Children at the moment have very little facilities for entertainment. Creation of a skating rink with an amusement park is proposed to be created within the White Hall premises. The Sports and Youth Welfare Department have already initiated steps to develop the White Hall Complex into a multi purpose recreational Centre where-in, facilities for skating, video games and other indoor activities can all be accommodated. The Department of Tourism would contribute Rs. 30 lakhs for development of this White Hall complex into a Central recreational Centre during the Plan. Apart from the above, facilities for pony rides is also proposed to be created.

**C. TOURIST VILLAGE**

**Eighth Plan: Rs. 100 lakhs**

In order to provide for tourists an atmosphere of peace and quiet in the wilderness away from the crowded city, it is felt worthwhile investing in the development of a tourist village at Rumtek which is about 12 km away from the Capital. The Rumtek monastery itself is a special attraction for tourists and apart from this, a botanical park has also been well developed there as a tourist spot. The proposed tourist village would be developed as a self contained complex wherein facilities for boarding, lodging, audiovisuals, souvenir shops, Tennis court, medical centre and other recreational activities will be provided. The Department of Tourism will play a catalytical role in development of the land scape and the infrastructure like roads, water supply and electricity and invite a private party to take up investment and management of the village. For this scheme an outlay of Rs. 100 lakhs has been envisaged.

**D. TREKKING AMENITIES**

**Eighth Plan: Rs. 100 lakhs**

Trekking in Sikkim has been gaining increasing popularity which is evident from the increase in the number of trekkers over the years. Basic amenities for trekkers have been developed to some extent along the popular trekking routes. In order to cater to the needs of the growing number of trekkers, the facilities will have to be augmented and services improved. During the VIIIth Plan, a base camp for trekkers is proposed to be created at Yoksum for providing accommodation with 20 rooms and a dormitory facility. Apart from Yoksum, camping huts are also contemplated at Tsokha, Bakhim and Dzongri. For these a provision of Rs. 100 lakhs has been proposed during the plan.

**E. NORTH SIKKIM INFRASTRUCTURE**

**Eighth Plan: Rs. 50 lakhs**

The hitherto unexposed areas of North Sikkim which is a paradise for rhododendrum lovers are now being included within the State Tourist map. Infrastructure in these areas has to be built up gradually. As part of the scheme for providing wayside amenities to tourists a Tourist resort has already been created at Chungthang which is the Subdivisional headquarter of

the District. During the VIIIth plan, apart from adding more wayside facilities for tourists, it is proposed to create a tourist complex at Singhik located near Mangan, the District quarter. This place has been selected as from here the most panoramic view of Mount Kanchenjunga can be had. Similar facilities are also required to be developed at Yumthang, popularly known for its hot springs. A total outlay of Rs. 50 lakhs has been proposed for these infrastructure development.

**F. AMENITIES AROUND MONASTERIES**  
**Eighth Plan: Rs. 25 lakhs**

There are several places in Sikkim which are of religious and historical significance. Prominent among these are Phurchachu Hot Spring and Tashiding, Ralong, Dubdi and Pemayangtse which are particularly important as centres of pilgrimage. Every year, large number of pilgrims including tourists visit these places. The department of Tourism proposes to ensure the upkeep of the areas and the environmental surroundings of these sacred places. Further, provision of tourist rest houses and other basic amenities as water supply and sanitation facilities are also proposed during the Plan. For this purpose, Rs. 25 lakhs has been proposed in the Plan.

**G. LAKES-FACILITIES**  
**Eighth Plan: Rs. 25 lakhs**

With the removal of entry restriction to areas such as Changu and Menmoitse, it is necessary to develop tourist facilities for boarding and lodging at these places. A total outlay of Rs. 25 lakhs has been proposed for these purposes.

**1. ROPEWAY**  
**Eighth Plan: Rs. 100 lakhs**

The viability of constructing a ropeway connecting Gangtok to Rumtek has been well established since Gangtok has very little to offer to tourists in terms of recreation. This project will be implemented with the technical expertise of reputed consultancy firms. A total outlay of Rs. 100 lakhs has been proposed for this purpose.

**2. IMPROVEMENT OF EXISTING CENTRES:**  
**Eighth Plan: Rs. 10 lakhs**

The department will have to ensure the

up keep and improvement of tourist Centres already developed so far. For these, a provision of Rs. 10 lakhs has been proposed.

**5. TOURIST ACCOMMODATION :**

**Eighth Plan: Rs. 50 lakhs**

**Annual Plan 1990-91 : Rs. 8 lakhs**

With the increase in the Tourist traffic particularly after the disturbances in the neighbouring State, the accommodations within the State capital will have to be expanded. While the private sector will be encouraged to cater to the increase in the demand partly, the departmental units in the capital namely the tourist lodge and the Mayur Hotel will also be expanded and facilities within these units upgraded and modernised. The physical facilities in Mayur Hotel will also be substantially improved by adding facilities for conferences, recreation etc. Apart from Gangtok, in-house facilities in the other lodges at Pemayangtse, and Rongpo will also be upgraded. The construction of the Yatri Newas at Gangtok is in an advance stage and adequate funds for its completion during the VIIIth Plan will have to be provided for. For the above purposes a total allocation of Rs. 50 lakhs has been envisaged during the VIIIth Plan.

**6. TOURIST TRANSPORT**

**Eighth Plan: Rs. 50 lakhs**

**Annual Plan 1990-91 : Rs. 8 lakhs**

While the services of transport by road from Siliguri to Gangtok is fully taken care of by the Sikkim National Transport organisation, the transportation requirements of the Tourist for various sight-seeing activities within the State will be catered to by the transport wing of the Tourist Department. Although the department has a skeletal fleet of vehicles comprising of buses and light vehicles, it is necessary to augment the fleet strength to meet the increasing demand from the tourist. The need for transportation facilities assumes all the more importance in view of the plans for organising conducted tours to Changu, Yumthang etc. During the VIIIth Plan it is proposed to acquire 10 mini buses and 10 light vehicles. Total allocation of Rs. 50 lakhs has been proposed accordingly.



## 7. TOURIST INFORMATION

**Eighth Plan: Rs. 20 lakhs**

**Annual Plan 1990-91 : Rs. 3 lakhs**

The information centres at Gangtok, Siliguri & Delhi are required to be maintained and the services improved. A new information centre at Rangpo tourist complex is also proposed to be created. In order to improve the quality of information services of the counter it is considered necessary to create a cadre of tourist guides. Specific attention will be paid to providing professional training to the guides. For the above activities a total provision of Rs. 20 lakhs has been proposed in the VIIIth Plan. Out of this outlay, Rs. 5 lakhs has been exclusively earmarked for improvement of the information counter at Bagdogra.

## 8. PUBLICITY

**Eighth Plan: Rs. 100 lakhs**

**Annual Plan 1990-91 : Rs. 9 lakhs**

The various publicity materials such as pamphlets, post cards, posters, brochures etc. will have to be professionally designed. The use of audio visual means for publicity will also be kept in mind. The over all publicity efforts of the department will be geared up so that the image of Sikkim can be widely projected through out the country. The use of National Magazines and Journals will also be considered. As part of the overall efforts to expose the image of the State among potential market, participation in national level fairs and festivals will be given due importance. A total outlay of Rs. 100 lakhs has been proposed for organising the publicity activities of the department.

## 9. TREKKING

**Eighth Plan: Rs. 20 lakhs**

**Annual Plan 1990-91 : Rs. 5 lakhs**

The department has already developed a few trekking routes in the South and West Districts. The amenities along these trekking routes have been fairly well provided for. However the quality of services and facilities along these existing routes will have to be considerably improved. Apart from this it is proposed to develop new trekking routes connecting Pemayangtse-Uttarey-Dentam-Versey-Pemayangtse, Gangtok-Phodong-Labrang-Maling and Namchi-Tendong-Ravangla-Kewzing-

Tashiding-Yoksom-Pemayangtse. For the above purpose Rs. 20 lakhs has been proposed during the plan.

## 10. ADVENTURE TOURISM

**Eighth Plan: Rs. 20 lakhs**

**Annual Plan 1990-91 : Rs. 3 lakhs**

Under this caption the activities of River Rafting is proposed to be taken up as a regular programme. The introduction of white water sport during the VIIIth Plan has attracted a large number of interested youths from all over the world. The department has already deputed a batch of departmental personnel for river rafting training at Rishikesh. In order to organise river rafting as a regular activity of the department it is proposed to acquire the required equipments and gears out of central assistance. Apart from the above it is also necessary to provide amenities in terms of camping huts and sanitation facilities along at convenient points along the river. For this purpose Rs. 20 lakhs has been proposed during the VIIIth Plan.

## 11. SURVEY AND STATISTICS AND MONITORING

**Eighth Plan: Rs. 5 lakhs**

**Annual Plan 1990-91 : Rs. 1 lakh**

Apart from compilation of statistics on tourist traffic it is necessary to also ensure hygienic conditions and proper standard of services in the various hotels and restaurants within the State. The organisational set up of this wing needs to be adequately strengthened and personnel trained in relevant skills. A provision of Rs. 5 lakhs has been proposed for the VIIIth Plan.

## 12. DIRECTION AND ADMINISTRATION

**Eighth Plan: Rs. 5 lakhs**

**Annual Plan 1990-91 : Rs. 1 lakh**

While emphasis will be made to restrict expansion of the manpower to the barest minimum, creation of certain new posts cannot be avoided in view of certain new units and facilities that have been proposed to be created and managed. For these liabilities Rs. 5 lakhs has been proposed for the plan.

### 13. TOURISM DEVELOPMENT CORPORATION

**Eighth Plan : Rs. 60 lakhs**

**Annual Plan 1990-91 : Rs. 10 lakhs**

Several of the activities of the Tourism Department need to be put on a commercial basis. The present system of management of the various units such as restaurants, hotels, lodges, transport services etc. directly by the department not only poses various administrative and accounting problems but also the administration of these units cannot be professionally managed. On account of this it is felt necessary to establish an autonomous corporation which

will be created by appointing a professional trained cadre of Officers and by drawing from the existing departmental manpower who will be appointed in the Corporation on deputation. The Corporation will be allowed to function independently on strict commercial principles and also given the freedom to tap institutional finances for any capital investments required for expansion of the business relating to various wings. For this Corporation a share capital base is proposed to be created and for which purpose Rs. 60 lakhs has been envisaged during the plan.

Rs. 123.00 lakhs is earmarked for the Annual Plan 1990-91 and the schemewise allocation is detailed in GN - 2 statement.

## DRAFT EIGHTH FIVE YEAR PLAN ( 1990-95 ) AND ANNUAL PLAN - 1990 - 91

## HEAD OF DEVELOPMENT : OUTLAY AND EXPENDITURE

## DEPARTMENT : TOURISM

Statement GN - 2

( Rs in lakhs )

Code No.	Name of the Scheme/Project	Seventh Plan Outlay (1985-90)	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which Capital Content	Annual Plan 1990-91 Proposed Outlay	Of which Capital Content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
110345200 TOURISM								
01	Tourist Infrastructure							
101	Tourist Centre	25.00	76.12	25.00	590.00	590.00	85.00	75.00
102	Tourist Accomodation	42.00	32.18	17.00	50.00	50.00	8.00	8.00
103	Tourist Transport Services	30.00	22.90	5.00	50.00	—	8.00	—
80	General							
001	Direction & Admn.	5.50	5.15	1.00	5.00	—	1.00	—
104	Information & Publicity	75.00	25.64	8.00	120.00	—	12.00	—
190	Tourism Development Corporation	—	—	—	60.00	—	10.00	—
800	Other Expenditure	22.50	2.57	1.00	45.00	—	9.00	—
	i) Survey Statistics							
	Monitoring	—	2.57	1.00	45.00	—	1.00	—
	ii) Trekking and River Rafting	—	—	—	40.00	—	8.00	—
Total		200.00	164.56	57.00	920.00	545.00	133.00	83.00

## CHAPTER XX

**Food & Civil Supplies**

1. The basic function of the Food & Civil Supplies Department is to ensure adequate availability of essential commodities throughout the State. Procurement, transportation, storage and distribution at controlled prices, along with the establishment of necessary infrastructure in terms of godowns, fair price shops etc. are taken care of by the department. The main articles being handled by the department include rice, wheat, sugar and edible oils. The quantum of essential commodities being handled by the department has been increasing every year given the increasing population and increasing areas being covered by the public distribution system. In the recent past much greater emphasis has also been laid on the strengthening of the public distribution system and built up of storage space at appropriate locations so that during the rainy season transportation of essential commodities is facilitated particularly when communication links are disrupted by the landslides etc.

2. During the 7th Plan period the department had an outlay of Rs. 53.76 lakhs and apart from strengthening the public distribution system the department also created storage space for 1500 Metric tonnes at crucial location such as Sombaria, Namchi and Rongli. The number of fair price shops was a little above 200. Further during the 7th Plan period the Prevention of Food Adulteration Act, 1986 was also been enforced in the State. Special schemes for distribution of food grains in tribal areas at subsidized rates was also implemented during the 7th Plan period.

3. During the 8th Plan period it is proposed to ensure greater spread of the public distribution system, strengthening the infrastructure as far as storage is concerned, introduce a system of ration cards in major urban centres and institute measures for consumers' protection by organising the Consumer Protection Council in the State. In addition the administrative machinery will also be strengthened by providing sufficient manpower in the Accounts and Audit area.

The programmes to be implemented in the 8th Plan are discussed below :-

**I DIRECTION AND ADMINISTRATION**

**Eighth Plan : Rs. 20 lakhs**

**Annual Plan 1990-91 : Rs. 3.00 lakhs**

With the implementation of the Prevention of Food Adulteration Act it has become necessary to establish a proper food testing and quality control laboratory in the State. Necessary equipments will have to be provided as also the laboratory technicians. Further with the increasing responsibilities in regard to food procurement, storage and distribution, it is essential a full fledged accounts and audit section should be organised with an Accounts Officer, One Accountant and one Junior Accountant. For these measures Rs. 20 lakhs will be required.

**II STORAGE AND WARE HOUSING**

**Eighth Plan : Rs. 25 lakhs**

**Annual Plan 1990-91 : Rs. 3.75 lakhs**

The present food godowns at Gangtok is located at a place right in the heart of the market and this causes extreme congestion in terms of traffic. Trucks parked in the area for loading and unloading cause extreme inconvenience to general public. It is therefore essential that the godowns are taken out of the centre of the town and shifted outside the town area with proper facilities. It is proposed to create a godown of 2000 metric tonnes and it is estimated that Rs. 10 lakhs will be required for this purpose. Further in order to see that we have storage capacity in the remoter areas, godowns of 500 metric tonnes are proposed to be built at Soreng, Dikchu, Pakyong, Kaluk, Ravangla, Dentam and Tingling for these godowns Rs. 15 lakhs is proposed.

### III INCREASE IN THE NUMBER OF FAIR PRICE SHOPS

**Eighth Plan : Rs. 10 lakhs**

**Annual Plan 1990-91 : Rs. 1.50 lakhs**

In order to cover a larger areas and to see that fair price shops are available to inhabitants of a population of 200 and above it is proposed to establish 200 more fair price shops during the 8th Plan period. Basically the effort will be to identify a suitable private shop who can take responsibility of storing and distributing the essential commodities. However with the increase in the numbers the cost of the supervision will go up and it has also been necessary to see that the ration card system is introduced in order to make the whole programme effective. House numbering, enumeration, ration card printing will have to be undertaken, for this purpose. A provision of Rs.10 lakhs is proposed for this effort.

### IV CONSTITUTION OF CONSUMER PROTECTION COUNCIL

**Eighth Plan : Rs. 1 lakh**

**Annual Plan 1990-91 : Rs. 0.25 lakh**

In view of the size of the State, it is proposed that the entire State be taken as one unit for the implementation of the Consumer Protection Act, 1986. One Consumer Protection Council is proposed to be formed for the entire State which will function from Gangtok, having its administrative set up linked with the Food and Civil Supplies Office. A sum of Rs.1.00 lakh has been provided as establishment expenditure.

Out of a total provision of Rs.56.00 lakhs proposed for Eighth Five Year Plan, Rs.8.50 lakhs has been earmarked for Annual Plan 1990-91. Schemewise details are given in statement GN-2.

## DRAFT EIGHTH FIVE YEAR PLAN ( 1990-95 ) AND ANNUAL PLAN - 1990 - 91

## HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE

Statement GN - 2

## DEPARTMENT : FOOD &amp; CIVIL SUPPLIES

( Rs. in lakhs )

Code No.	Name of the Scheme/Project	Seventh Plan Outlay (1985-90)	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which capital content	Annual Plan 1990-91 Proposed Outlay	Of which capital content
1	2	3	4	5	6	7	8	9
101240800	Food, Storage & Warehousing							
01	Food							
001	Direction & Admn.	16.00	7.02	2.00	20.00	—	3.00	—
800	Consumer Protection	—	—	1.00	1.00	—	0.25	—
02	Storage & Warehousing	39.00	—	—	25.00	25.00	3.75	3.75
001	Direction & Admn.	17.00	15.69	3.50	—	—	—	—
800	Other Expenditure							
(i)	Construction of Godown	22.00	15.67	8.00	—	—	—	—
(ii)	Increase in the number of fair price	—	—	—	10.00	—	1.50	—
	Total	55.00	38.38	14.50	56.00	25.00	8.50	3.75

## CHAPTER XXI

**Education****INTRODUCTION :**

I. The spread of education is one of fundamental importance in bringing about around transformation of any society. Planning experience elsewhere in the country and in the world has shown that improvement of literacy standards has an impact on every aspect of human development and plays an extremely important role in the dynamics of economic growth and social development. The States which have paid adequate attention to education have been able to show superior performance as regards the quality of life of the people and areas such as life expectancy, infant mortality, growth of population and a host of other issues relating to the life of the community are directly influenced by the progress recorded in the field of education.

In Sikkim the importance of bringing about all round improvement in the spread of education has been fully realised and both during the Sixth and Seventh Plans there has been significant increases in the expenditure in education. A great deal of ground work has been done in terms of establishment of schools, covering some of the remotest corners of the State. While during the Sixth Plan, a total of Rs.14.58 crores was spent on education, by the end of the Seventh Plan the State would have spent Rs.39.97 crores. There has been in fact substantial increases in outlay every year and while we started with an outlay of Rs.1.21 crores in 80-81 by the end of the Sixth Plan the expenditure had gone up to Rs.5.59 crores. Similarly, during the Seventh Plan, as well while during 85-86 outlay was Rs.5.49 crores the terminal year of the plan would witness an expenditure of Rs.10.35 crores.

With the implementation of the New Education Policy, a total reorientation of the policies and programmes relating to education has been brought about with specific emphasis on upgradation of facilities, provision of basic equipment, improving the quality of education, teachers' training and research in the field of educational technology. Vocational education has been given specific attention and planning of manpower requirements for the State particularly as regards technical manpower has been given for the first time due attention.

**II. LITERACY SCENARIO OF SIKKIM:**

As per the 1981 Census, the State's literacy rate is 34.05%. However, the percentage of literates in 1988 is estimated to be 50% and this is expected to go up to 55% by 1990. The basic aim of the Eighth Plan would be to improve this literacy percentage to atleast 65% by 1995. Suitable policies to achieve this objective will have to be adopted and considerable strengthening of the educational infrastructure, provision of equitable educational opportunities, ensure removal of inter district disparities will all have to receive adequate attention during the Eighth Plan.

While there has been an improvement in the overall level of literacy, female literacy is still lagging behind. Further there are considerable disparities between the urban and rural areas, among different communities and from area to area. It is therefore essential that an effort should be made to identify low literacy areas, low literacy segments and adopt special measures to substantially improve the situation in these areas so that there is a greater uniformity in the level of literacy achieved in the State. The table below would show the position as regards literacy status in the four districts of the State and the disparity between male and female literacy level :

**INTER DISTRICT COMPARISON OF LITERACY RATES (SOURCE 1981 CENSUS)**

	Total	Male	Female
SIKKIM	39.58	50.49	26.17
NORTH	34.94	45.97	19.97
SOUTH	37.87	37.49	18.25
EAST	47.81	57.73	35.13
WEST	27.58	38.18	15.52

The situation in literacy disparity from revenue block to revenue block is also a matter of concern. As per the 1981 Census, there were 40 revenue blocks with literacy rate of less than 10%, 82 blocks with a literacy rate between 11 to 20%, 135 revenue blocks between 21 to 30%, 118 revenue blocks with literacy rate between 31 to 40%. It is only 65 revenue blocks which had literacy rate between 40 to 70%. During the Sixth and Seventh Plans

due to the efforts made to spread education throughout the State, substantial improvements have indeed been brought about in all these areas. However, further efforts will have to be made during the Eighth Plan to concentrate on these areas where the literacy situation is unsatisfactory. Special efforts will have to be made by providing the required educational facilities and encouragement of female education particularly for retaining the students between the ages of 8 to 10, in the schools as it has been found there is a pronounced ten-

dency on the part of parents to withdraw female children about this age, as they are considered useful material in domestic and agriculture employment at this age. Considerable attention will have to be paid to the West District where the literacy level is below the rest of the State.

The following table briefly analyses the basic achievement during the Sixth and Seventh Plans in respect of all aspects of education and the scenario that is likely to emerge by the end of the Eighth Plan :

**III. EDUCATIONAL DEVELOPMENT IN SIKKIM DURING THE SIXTH, SEVENTH FIVE YEAR PLANS AND THE PROPOSED DEVELOPMENT DURING THE EIGHTH FIVE YEAR PLAN IS ILLUSTRATED IN THE TABLE BELOW.**

Sl. No.	Description	Position at the end of Sixth Plan 1980-85	Position at the end of the Seventh Plan 85-90	Proposed position at the end of the VIII Plan 1990-95.
1	2	3	4	5
1.0	<b>INSTITUTIONS</b>			
	Pre-Primary Schools	198	700	720
	Lower Primary Schools	218	271	231
	Primary Schools	239	245	255
	Junior (Middle) High Schools	91	125	155
	Secondary (High) Schools	37	54	69
	Senior Secondary Schools	11	14	19
	<b>TOTAL</b>	<b>794</b>	<b>1409</b>	<b>1449</b>
2.0	<b>ENROLMENT</b>			
	Pre-Primary Stage	5000	19300	27900
	Primary Stage (I-V)	60821	70000	80000
	Middle Stage (VI-VIII)	13423	16000	22000
	Secondary Stage (IX-X)	3165	5200	11450
	Senior Secondary Stage (XI-XII)	928	1500	5600
	<b>TOTAL</b>	<b>83337</b>	<b>112000</b>	<b>1,46,950</b>
3.0	<b>TEACHERS</b>			
	Pre-Primary (School Mothers)	198	700	720
	Primary Stage (Primary Teachers)	3044	4079	4369
	Middle Stage (Graduate Teachers)	639	949	1199
	Secondary Stage (Graduate Teachers)	280	584	724
	Senior Secondary Stage (Post Graduate Teachers)	137	156	211
	<b>TOTAL</b>	<b>4298</b>	<b>6468</b>	<b>7223</b>
4.0	<b>PLAN BUDGET (RS. IN LAKHS)</b>	<b>1458.77</b>	<b>3997.95</b>	<b>6300.00</b>



### ENROLMENT TARGET DURING THE EIGHTH FIVE YEAR PLAN 1990-95

Education planning is intimately linked with projection of child population in the State and the following table indicates the assessment made in this regard :

#### YEARWISE ESTIMATED CHILD POPULATION PROPOSED ENROLMENT TARGETS AND THE PERCENTAGE OF CHILDREN TO BE COVERED AT VARIOUS STAGES OF EDUCATION DURING THE EIGHTH FIVE YEAR PLAN (1990-95)

Stage/Classes/Age-group	Child population/ proposed target	1990	1991	1992	1993	1994
1. Pre-Primary Stage (4-6 years)	Child population	25200	26200	27300	28500	29400
	Proposed target	20600	22000	23700	25700	27900
	Percentage to be covered	81.75	83.97	86.81	90.18	94.90
2. Primary Stage Classes I-V (6-11 years)	Child population	57100	59200	61300	63500	65600
	Proposed target	72000	74000	76000	78000	80000
	Percentage to be covered	126.09	125.00	123.98	122.83	121.95
3. Middle Stage Classes VI-VIII (11-14 years)	Child population	31200	32300	33400	34400	35500
	Proposed target	17500	18500	19500	20500	22000
	Percentage to be covered	56.09	57.28	58.38	59.59	61.97
4. Secondary Stage Classes IX-X (14-16 years)	Child population	20100	20900	21500	22300	22900
	Proposed target	6400	7300	8400	9800	11450
	Percentage to be covered	31.84	34.93	39.07	43.95	50.00
5. Sr. Sec. Stage classes XI-XII (16-18 years)	Child population	19700	20400	21100	21800	22500
	Proposed target	2400	3100	3800	4600	5600
	Percentage to be covered	12.18	15.20	18.00	21.10	24.89

On the basis of this assessment the need for expansion of the infrastructure will have to be assessed, both in terms of creation of new facilities and upgradation of existing facilities. Linked with this is an assessment of distances to be travelled by children to the nearest primary schools. The Fifth All India Education Survey indicated that in some areas children have to travel approximately 4 KM but this really is confined only to the very remote parts of the State. On the average children in Sikkim do not have to travel for more than one and half KM though in some cases 2 to 3 Kms distance is required to be travelled. In hill areas this coverage is quite satisfactory especially because of the fact that in several schools the number of children per class room is well below 30 and it would not be desirable to expand the facilities further only on the basis of distances to be travelled. On the basis of the above considerations and the fact that there has been a massive increase in the Pre-Primary and Primary Schools during the Sixth and Seventh Plans, it is proposed to open only 20 new schools as Pre-Primary institutions. Further in regard to lower Primary also the target will be 20 new schools. There are 60 lower Primary Schools which have reached optimum level of intake of students, 60 lower Primary Schools are proposed to be upgraded to Primary Schools. The position as regards targets for establishment of new schools and upgradation of schools is indicated in the table below :

## VII. MAJOR STRATEGIES FOR THE DEVELOPMENT OF EDUCATION DURING THE EIGHTH FIVE YEAR PLAN 1990-95

Major initiatives proposed to be launched during the Eighth Five Year Plan would include:

- (1) Provision of nursery education facilities in the public sector linking of pre-primary education programmes with the Integrated Child Development Scheme and consolidation and improvement of the pre-primary education facilities so far created.
- (2) Improvement of physical facilities in primary schools under Operation Blackboard Scheme, drastic reduction in drop-out rates and ensuring 100 percent retention of children at the primary level.
- (3) Need based expansion of middle stage education facilities, consolidation of the physical facilities developed so far, stepping up of the participation rate of children of the corresponding age-group at the middle stage to 100 percent and raising of the enrolment percentage of girls SC and ST children to 100 percent.
- (4) Launching of the revised scheme of Non-Formal Education.
- (5) Ensuring vertical mobility of children from class to class to ensure larger participation of children at the middle, secondary and senior secondary stage.

Sl. No	Schools	Schools Established up-graded in Seventh plan (1980-85)	Number of schools at the end of Seventh Plan (1985-90)	Number of schools proposed to be established up-graded in VIII plan (1990-95)	Number of schools at the end of Eighth plan (1990-95)
1	2	3	4	5	6
1.	Pre-primary	502	700	20	700
2.	Lower Primary	130	271	20	231
3.	Upper Primary	61	245	60	255
4.	Junior (Middle) High	53	125	50	155
5.	Sec. (High)	20	54	20	69
6.	Senior Sec.	03	14	05	10
TOTAL		769	1409	175	1449

- (6) Strengthening of the programmes of work experience, socially useful productive work and vocationalisation of the middle, secondary and senior secondary stages of education.
- (7) Expansion of secondary level educational facilities on justifiable merits and consolidation of physical facilities.
- (8) Streamlining and reorganisation of courses of studies at senior secondary stage of education, including computer literacy programmes.
- (9) Broad basing of adult education facilities and launching of post literacy programmes.
- (10) Covering of 25 percent students of senior secondary stage under the Vocational Education Programme by 1995.
- (11) Establishing of facilities for technical and management education and setting up of two polytechnics by 1995.
- (12) Expansion of teacher education facilities.
- (13) Creating of a network of infrastructural facilities for games, sports, physical education, yoga and youth welfare activities. Expansion of NSS, NCC and Scout and Guide activities.
- (14) Establishing of a School of Language for development of Bhutia, Lepcha and Limboo languages.
- (15) Introduction of post graduate courses in Sikkim Govt. College and around development of Sikkim Govt. College.
- (16) Diverting of examination and evaluation machinery from the Departmental control and setting up of an independent autonomous Examining Body in the form of Sikkim Board of Education.
- (17) Ensuring liberal award of scholarships and stipends to promote education of weaker sections and that of girls, encouraging of gifted and high achievers and promotion of quality education.
- (18) Strengthening of the school complex system and promotion of Sahodaya Scheme.
- (19) Establishment of State Advisory Board of Education.
- (20) Overhauling of the planning process and administrative, management and supervisory machinery.

Schemewise proposals on the development of General Education, Games, Sports, Physical Education & Youth Welfare and Technical Education are detailed in the following pages.

### GENERAL EDUCATION, GAMES SPORTS, PHYSICAL EDUCATION, YOUTH WELFARE AND TECHNICAL EDUCATION

#### Schemewise Outlays with Capital Component

S.No.	Scheme	Rupees. in lakhs			
		Total proposed outlay	Of which Capital	Outlay	
				1990-95	total
				1990-91	
<b>I</b>	<b>ELEMENTARY EDUCATION</b>				
1.	Pre-primary schools	350.00	225.00	60	40
2.	Primary schools	740.00	240.00	150	80
3.	Assistance to Non-Govt. Pry. & Monastic schools including Spl. Edn.	170.00	—	60	—
4.	Junior high schools	1050.00	300.00	130	50
5.	Purchase & Pub. of textbooks	155.00	10.00	35	10
6.	Non-Formal Education	50.00	—	10	—
7.	Work Experience	35.00	—	5	—
<b>TOTAL ELEMENTARY EDUCATION</b>		<b>2550.00</b>	<b>775.00</b>	<b>450</b>	<b>180</b>

**II SECONDARY EDUCATION**

8.	Secondary & Sr. Secondary Schools	1450.00	475.00	300	120
9.	Assistance to Non Govt. Sec. school	100.00	—	30	—
10.	Vocationalisation of Education	150.00	75.00	30	10
11.	Sikkim Board of School Education	50.00	40.00	20	18
12.	Construction of SC/ST girls hostel	50.00	50.00	10	10

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<b>TOTAL SECONDARY EDUCATION</b>		1800.00	640.00	390	158
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**III HIGHER EDUCATION**

13.	Sikkim Govt. Degree College	165.00	115.00	30	20
14.	Sikkim Law College	10.00	5.00	3	2
15.	Sikkim Institute of Higher Nyingma Studies	75.00	40.00	17	10

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<b>TOTAL HIGHER EDUCATION</b>		250.00	160.00	50	32
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**IV TEACHER EDUCATION**

16.	District Institute of Edn. & Trg.	10.00	10	10	10
17.	State Institute of Ednl. Research Trg.	70.00	40	15	10
18.	Educational Technology Programme	30.00		5	—
19.	Special Teachers Trg. Programme	50.00		10	

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<b>TOTAL TEACHER EDUCATION</b>		160.00	50.00	40	20
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**V ADULT EDUCATION**

20.	State Adult Education Programme	50.00		10	—
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**VI OTHER PROGRAMMES (SCHOLARSHIPS)**

21.	Free Boarding Stipends	30.00	—	6	—
22.	Scholarship for higher studies in professional Education & Trg.	30.00	—	6	—
23.	Scholarship for higher education	50.00	—	10	—
24.	Scholarship for studies in Pub. sch.	15.00	—	3	—
25.	Scholarship for studies in Sikkim Govt. College.	15.00	—	3	—
26.	Scholarship to girls student for studies in Sec. & Sr. Sec. stages.	10.00	—	2	—

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<b>TOTAL OTHER PROGRAMMES</b>		150.00	—	30	—
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**VII DIRECTION & ADMINISTRATION**

27.	Direction & Administration	125.00	25.00	30	10
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	TOTAL GENERAL EDUCATION	5085.00	1650.00	1000	400
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**VIII SPORTS & YOUTH SERVICES**

28.	Direction & Administration	40.00	—	10	
29.	Youth Welfare Schemes	50.00	—	10	
30.	Sports Games & Physical Education	150.00	—	25	
31.	Development of Infrastructures	275.00	275.00	55	55

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	TOTAL SPORTS & YOUTH SERVICES	515.00	275.00	100	55
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**IX TECHNICAL EDUCATION**

32.	Direction & Administration	10.00	—	2	—
33.	Establishment of Training-cum-Service & Production Centre and Modernisation of ITI ( Rangpo)	550.00	400.00	115	100
34.	Establishment of Community Polytechnic	140.00	100.00	33	25

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	TOTAL — TECHNICAL EDUCATION	700.00	500.00	150	125
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	Grand Total General Education, Games, Sports, & Youth Welfare & Technical Education	6300.00	2425.00	1250	580
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**SCHEME NO. : 1****ELEMENTARY EDUCATION:**

TOTAL Rs. 350 Lakhs

**PRE-SCHOOL, EDUCATION:**

REVENUE Rs. 125 Lakhs

**PRE-PRIMARY SCHOOLS:**

CAPITAL Rs. 225 Lakhs

**1.0 PROGRAMME OBJECTIVES**

- 1.1 Provision of universal pre-school education facilities for children in the age-group 4-6 years to prepare them for entering the world of formal education.
- 1.2 Streamlining and integration of Early childhood Care and Education activities.
- 1.3 Upgradation, improvement and modernisation of the ECCE programme and the physical facilities so far created.
- 1.4 Improvement of the standard and quality of the ECCE.

**2.0 SALIENT SCHEMES PROPOSED FOR IMPLEMENTATION**

- 2.1 Establishment of 20 new pre-primary centres.
- 2.2 Appointment of 20 additional pre-school teachers.
- 2.3 To achieve enrolment target of 8200 additional children by 1995
- 2.4 Provision for essential physical facilities to 20 new pre-primary centres.
- 2.5 Upgradation, improvement, modernisation and replacement of the existing physical facilities in 528 pre-primary units.
- 2.6 To create administrative set up at the department level to implement programmes, coordinate with district level functionaries UNICEF and NCERT, monitor and evaluate the pre-school education programme.
- 2.7 To upgrade the quality of pre-school teachers by improving their general and professional qualifications.
- 2.8 To partially clear the backlog of 300 classrooms at the cost of Rs. 225 lakhs.

For the pre-school education programme an outlay of Rs. 350 lakhs is required, of which Rs. 225 lakhs is meant for construction of classrooms. A provision of Rs. 60 lakhs has been proposed for the Annual Plan 1990-91, out of which capital content will be Rs.40 lakhs.

**SCHEME NO. : 2****: ELEMENTARY EDUCATION :**

TOTAL OUTLAY Rs. 740 Lakhs

**: PRIMARY EDUCATION :**

REVENUE Rs. 500 Lakhs

**: PRIMARY SCHOOL**

CAPITAL Rs. 240 Lakhs

**1.0 PROGRAMME OBJECTIVES**

- 1.1 To universalise primary education to ensure that 100 percent children in the age - group 6 - 11 years are covered either under the formal or non-formal education programme, including children belonging to SC/ST communities.
- 1.2 To reduce drop-out rate to a level below 10 percent.
- 1.3 To ensure that children do not stagnate in classes I-III.
- 1.4 To introduce non-detention policy at least up to class III.
- 1.5 That participation rate of girls and SC/ST children, of the age-group 6-11 years at the primary stage is stepped up from the current rate of 44 percent and 31 percent to 50 percent and 40 percent respectively.

**2.0 SPECIAL STRATEGIES FOR IMPROVEMENT OF THE PRIMARY EDUCATION PROGRAMME**

- 2.1 To eliminate the remaining under age children from the primary stage by diverting them to pre-primary stage.
- 2.2 To gradually eliminate 54 percent over age children from the primary stage by promoting them up to middle stage.
- 2.3 To cover the school drop-outs and other out-of-school children of the age-group 6-11 years under the non-formal education programme.
- 2.4 To ensure upgradation of general and professional qualifications of primary school teachers through a compulsory continuing education programme.

**3.0 ENROLMENT TARGETS**

- 3.1 To achieve a gross enrolment ratio (targets) of 105 percent and 120 percent at the primary stage by 1995.
- 3.2 To raise age specific ratio of 65 percent in 1986 to atleast 90 percent or 100 percent by 1995.

4.0 MAJOR SCHEMES/PROJECTS  
PROPOSED FOR IMPLEMENTATION

4.1 To provide day school facilities in and around urban schools so that the present practice of morning shift is reduced.

Physical and Financial Targets

Targets	1990-91	1991-92	1992-93	1993-94	1994-95	1990-95
Physical	2800	2800	2800	2800	2800	1400
Financial	14.00	14.00	14.00	14.00	14.00	70.00

(Rs. in lakhs)

4.2 Establishment/taking over of 20 Lower Primary (classes I-III) schools during the Eighth Plan in accordance with the recommendation of the Fifth All India Educational Survey - 1986.

4.3 Creation of 40 posts of primary teachers and 20 posts of language teachers,

4.4 To provide 60 general primary teachers and 30 languages teachers during 1990-91 1991-92 as spillover liability of 30 single teacher schools taken over during 1989-90.

4.5 Upgradation of 60 lower primary (classes) I - III schools to primary (Classes I-V) schools during 1990-91 with provision of 120 general primary teachers and 60 language teachers.

4.6 To provide essential physical facilities as per the norms of the 'Operation Blackboard' project to 30 single teacher schools taken over during 1989-90.

4.7 To provide additional furniture to 519 existing primary schools.

4.8 To clear the backlog of 370 classrooms at the total cost of Rs. 240.00 lakhs at the rate of Rs. 65,000/- per classroom (Schemes not cleared by the State Planning & Development Department.)

4.9 To provide textbooks to new children to be admitted at primary stage during 1990-95.

4.10 To provide grant-in-aid to non-Government Primary Schools.

4.11 To improve the quality of primary teachers by upgrading their general and professional qualification.

4.12 New students to be enrolled at the primary stage will continue to be covered. Under the present incentives of free universal education, free supply of textbooks, free mid-day meal programme.

4.13 Incentive of merit scholarships will be provided to girls students of classes IV and V at the rate of two scholarships per school per class at the rate of Rs. 50/- per month for 10 months of the year at the total cost of Rs. 70 lakhs for 5 years.

4.14 To create administrative set up at the departmental level to implement programmes coordinate with district level functionaries, UNICEF and NCERT, monitor and evaluate the primary education programme. Post of 1 Assistant Director and 1 LDC/Typist at the State level and 4 Assistant Education Officers at the district level are proposed to be created.

An outlay of Rs. 740 lakhs is proposed for the sub-sector of primary education (primary schools) to cover the teacher cost and non-teacher cost. Out of which Rs. 240 lakhs is intended for capital :- A provision of Rs. 150 lakhs has been proposed for the annual plan 1990-91 out of which Rs. 80 lakhs is for the capital.

**SCHEME NO : 3**

**5.0 ASSISTANCE TO NON-GOVERNMENT PRIMARY, MONASTIC AND SPECIAL SCHOOLS. Total outlay : Rs.170 lakhs Revenue-170 lakhs**

5.1 Under the grant-in-aid scheme for non-government primary schools-Dharma Chakra Centre (Rumtek) and Anjuman Islamia Madarsa will continue to get recurring and non-recurring grants for their further development. For this purpose an outlay of Rs.5.00 lakhs is earmarked.

5.2 For promotion of Sanskrit education in the State the existing 11 Sanskrit Pathshalas will be further improved by providing grants. This Sanskrit Pathshala at Bermiok Martam (West District) will be expanded. New

Sanskrit Pathshalas will be brought under the grant-in-aid scheme. To realize these objectives an outlay of Rs.25 lakhs is proposed.

5.3 With a view to cater to the requirements of the existing 31 monastic schools and to bring new ones under the grant-in-aid scheme, an outlay of Rs.30 lakhs is earmarked, which includes Rs.5.00 lakhs exclusively intended for the Monastic School at Chor-ten (Deorali).

5.4 **ASSISTANCE TO NAMCHI PUBLIC SCHOOL : Rs.100 Lakhs**

The State Govt. has sponsored establishment of a public school at Namchi during 1989-90. For its development during the 8th Five Year Plan period 1990-95, a grant of Rs.100 lakhs is earmarked. This will be used for creating all the basic facilities, buildings etc. for the new school.

5.5 **SPECIAL EDUCATION : Rs.10 lakhs**

Sikkim has made an impressive start in the provision of facilities for special education. The facilities so far provided include a special class being run in P.N. Girls' School for mentally retarded children, a class of orthopaedically and mentally retarded children in Arithang school and Jawaharlal Nehru Memorial Institute for the Handicapped at Boomtar in Namchi for blind children. To consolidate the facilities so far provided and to expand and improve them to the extent necessary, an outlay of Rs.10 lakhs is proposed.

A total provision of Rs.170 lakhs has been made for the scheme no.3 for the 8th Plan period. A provision of Rs.60 lakhs is proposed out of that for the annual plan 1990-91.

**SCHEME NO:4**

**ELEMENTARY EDUCATION**

**Total Rs. 1050 lakhs**

**Revenue Rs. 750 lakhs**

**JUNIOR HIGH SCHOOLS**

**Capital Rs. 300 lakhs**

1.0 **Programme Objectives**

1.1 Universalisation of middle stage education by ensuring that 100% children of the age group 11-14 years attend formal/non-formal schooling facilities.

1.2 Expansion of middle stage educational facilities.

1.3 Ensuring upward mobility of 54% children of the age group 11-14 years at present stagnating at the primary stage to middle stage.

1.4 Ensuring that 24% children of 11-14 years who are out of the school are inducted to non-formal educational facilities.

1.5 To ensure increase in participation percentage of SC/ST children and girls in formal education system.

2.0 **Enrolment Targets**

2.1 As against the 35,500 projected child population in the age group 11-14 in 1995, 26,600 children are proposed to be enrolled at the middle stage.

2.2 The remaining 8,900 children will be covered under the non-formal education system.

2.3 During 1990-95, 19,500 additional children will be covered under the formal and non-formal educational facilities.

2.4 At this stage, target of gross enrolment ratio of 75% is proposed to be achieved by 1995.

2.5 Participation rate of girls at this stage would be increased from 42 in 1986 (according to Fifth All India Educational Survey) to 48% by 1995.

2.6 Participation rate of SC/ST students will be increased by 5%

3.0 **Major Schemes proposed for implementation**

3.1 Upgradation of 50 primary schools to middle schools during 1990-91 according to national norms prescribed for hill states.

3.2 Appointment of 250 graduate teachers including 50 headmasters, appointment of 50 language teachers and 50 peons.

3.3 Creation of administrative set up at the state and district levels by providing one ADE and one LDC/Typist at the state and 4 AEOs at the district level.

3.4 Provision of adequate physical facilities at 124 existing junior high schools.

3.5 Provision of essential physical facilities at 50 newly upgraded junior high schools on the pattern of Operation Blackboard Scheme.



- 3.6 Clearing the backlog of 200 classrooms at the rate of Rs.80,000/- per classroom at the total cost of Rs.240 lakhs.
- 3.7 Provision of class III and IV staff quarters, (30 class IV quarters at the cost of Rs. 24.00 lakhs and 30 class III at the cost of Rs. 36 lakhs.)
- 3.8 Clearing the backlog of toilets, drinking water and electrification.
- 3.9 **Incentives** in the form of Provision of merit scholarships to girl students.
- 3.10 Provision of free boarding stipends to students to facilitate their stay in the hostel for middle stage education if in their locality such facilities are not available.
- 3.11 Provision of special stipend to meritorious students standing first, second, third in the district in class V terminal examination. 50% stipends will be reserved for girls.
- 3.12 Provision of special stipend to students talented and outstanding in games and sports.
- 4.0 Grant of Rs.30 lakhs is intended for the existing Tathangchen junior high school.

An outlay of Rs.1050 is required for the sub-sector of junior high schools, out of which Rs.505 lakhs is meant for teacher cost, Rs.215 lakhs for non-teacher cost, Rs.300 lakhs as capital cost and Rs.30 lakhs as grant-in aid to a non-government institutions.

A provision of Rs.130 lakhs is proposed for the annual plan 1990-91 out of which capital content will be Rs.50 lakhs.

**SCHEME NO. : 5**  
**SUB-SCHEME : PURCHASE AND PUBLICATION OF TEXTBOOKS :**

**Revenue-145 lakhs**  
**capital Rs.10 lakhs**  
**Total: Rs.155 Lakhs**

The Textbook unit of the Department of Education which is responsible for purchase, publication, procurement and distribution of textbooks has become a very large unit having an annual budget of about Rs.100.00 lakhs. Therefore, for its strengthening and consolidation, following schemes are proposed :

1. Strengthening of administrative machinery

of the textbook unit at the headquarter level.

2. Creation of textbook management set-up at the district, sub-divisional and school complex levels.
3. Purchase of one additional truck and one vehicle for the textbook unit.

A total outlay of Rs.155 lakhs, would be needed for purchase and publication of textbooks and other allied services, including Rs.10 lakhs for capital.

Rs.35 lakhs is proposed to be spent during the annual plan 1990-91 out of which Rs.10 lakhs will be for capital.

**SCHEME ON. :6:**  
**NON-FORMAL EDUCATION :**

**Total Rs. 50 Lakhs**  
**REVENUE Rs. 50 Lakhs**  
**CAPITAL : Nil**

Non-formal education programme supplements the efforts of the formal education system to fulfill the National Commitment of universalising elementary education by 1995. A systematic programme of NFE for school drop-outs, working children and specially girls who cannot afford to attend day schools is being implemented on the lines of the revised NFE schemes introduced by the Government of India. Full advantage would also be taken of the Revised Centrally Assisted Schemes of Non-Formal Education launched since 1987-88.

During 1990-95, the State intends to launch two pilot projects, each comprising of 400 centres in which about 4000 learners are anticipated to be enrolled.

To promote retention of learners in the NFE system, they will be suitably compensated for loss of income from economic activities by incentive schemes of attendance stipends especially to girl learners, supply of free textbooks and stationery. Introduction of vocational component and scheme of work experience (SUPW) will be suitably attempted to ensure income generation for such children to support their livelihood.

As at present there exists no administrative, supervisory, monitoring and evaluation machinery for this important national programme of education. The required machinery will have to be created during 1990-91.

An outlay of Rs. 50 lakhs has been earmarked for this purpose. An outlay of Rs. 10 lakhs is proposed for the annual plan 1990-91.

**SCHEME NO. : 7**  
**WORK EXPERIENCE Rs. 35 Lakhs**

The new Education Policy views "Work Experience" as a purposive and meaningful manual work, would be organised as an integral part of the learning process, resulting in the production of either goods or services useful to the community. As an essential component at all stages of education it will be provided through well-structured and graded programmes. "It would comprise activities in accordance with the interest, abilities and needs of students, the level of skills and knowledge to be upgraded with the stages of education. This experience would be helpful on their entry into the workforce. Pre-vocational programmes provided at the lower secondary stage will also facilitate the choice of the vocational courses at the higher secondary stage".

Major schemes proposed to be implemented are as under :

1. Improvement of school environment by beautifying it with plantation, gardening, repairing and renovation of schools, annual maintenance, providing protective works, constructing approach road to school etc.
2. Manufacture of dusters, chalksticks, broomsticks, wastepaper baskets and other craft materials.
3. Knitting, embroidery, cutting and tailoring for girls.
4. Manufacture of hollow blocks by students of school located by the river side.
5. Social services in neighbouring villages and towns.
6. Education/Library surveys.
7. Extension and improvement of playgrounds.

An outlay of Rs. 35 lakhs is proposed to be earmarked for this programme during the Eighth Five Year Plan period, out of which Rs. 5 lakhs will be spent during the annual plan 1990-91.

**SCHEME : 8**  
**: SECONDARY EDUCATION :**  
**Total Rs. 1450 lakhs**  
**: SECONDARY SCHOOL ( IX & X )**  
**Revenue Rs. 976 lakhs**  
**Capital Rs. 475 lakhs**

**1.0 PROGRAMME OBJECTIVES**

**NATIONAL POLICY DIRECTIVES  
ON DEVELOPMENT OF SECONDARY  
EDUCATION**

- 1.1 Promotion of specialisation in terms of science, the humanities and social sciences among students.
- 1.2 Vocationalisation of secondary stage of education for development of valuable manpower for economic growth.
- 1.3 Extension of secondary level facilities covered unserved areas.
- 1.4 Consolidation of the physical infrastructure so far developed and improvement of teaching methodology and the quality of education.
- 1.5 Induction of SC/ST and girls students in larger number into this stage.

**2.0 ENROLMENT TARGETS**

- 2.1 Raising the enrolment strength of 5139 at the secondary stage in 1988 to 11,450 by 1995 and thereby enhancing the enrolment ratio of 27.5 in 1988 to 50 by 1995.
- 2.2 Raising the participation rate (enrolment percentage) of girls from 39 in 1988 to 48 by 1995 and also that of SC and ST students.

**3.0 ACTION EMPHASIS IN THE ACADEMIC AREA**

- 3.1 Intensive training of secondary teachers to enhance the quality of teaching-learning process.
- 3.2 Close monitoring of the progress in improvements relating to methodology.
- 3.3 Adoption of performance oriented approach to teaching.
- 3.4 To improve the professional competence of teachers and to ensure that 100 percent of them are trained during the Eighth Plan.

- 3.5 A better deal to teachers with greater accountability.
- 3.6 Performance appraisals of institutions (Head of Institutions and teachers) and standard of physical facilities provided.
- 3.7 Vocationalisation of 50 per cent secondary institutions.

#### 4.0 MAJOR SCHEMES PROPOSED FOR IMPLEMENTATION :

- 4.1 Upgradation of 20 junior high schools to secondary schools six of which will have secondary stage exclusively for girls with free boarding facilities.
- 4.2 Creation of posts of 20 headmasters, 100 graduate teachers, 20 graduate grade language teachers, 20 lower division clerks, 20 laboratory attendants and 20 sweepers.

#### SCHEMES OF UPGRADATION, MODERNISATION AND IMPROVEMENT OF EXISTING 54 SCHOOLS

- 4.3 Clearing the backlog of 19 laboratory attendants and 19 sweepers in 19 secondary schools upgraded in 1985.
- 4.4 Improvement of physical facilities in existing 54 existing secondary schools in terms of class-rooms, science laboratories, geography room, library room, office staff room, teaching learning equipments, toilets, drinking water, electrifications, hostels, playgrounds etc.

#### CAPITAL SCHEMES

- 4.5 Construction of school buildings in 20 newly upgraded secondary schools.
- 4.6 Construction of class III and class IV staff quarters in new secondary schools.
- 4.7 Construction of girls hostels.
- 4.8 Shifting of Singtam Secondary school to Bermiok and development of school complex with an infrastructure of building road margin etc.

#### DIRECTION & ADMINISTRATION:

- 4.9 Creation of administrative machinery for secondary sector of Education including Vocational Education by creating posts of one deputy director, 2 assistant education officers, 1 U.D.C. and 1 L.D.C.

#### INCENTIVE SCHEMES :

- 4.10 Merit Scholarship to students securing 60 percent and above marks in mathematics and Science at the class VIII Board Examination.
- 4.11 Merit scholarship to students talented in games and sports.
- 4.12 Free boarding stipend to boys and girls of areas having no secondary level educational facilities to facilitate their stay in hostel for promoting secondary level studies.
- 4.13 Merit scholarship to students securing above 60 percent marks in class VIII Board Examination.
- 4.14 Merit scholarship to girls students securing above 50 percent marks in class VIII Board Examination.

#### 1.0 SENIOR SECONDARY STAGE (CLASSES XI-XII)

- 1.1 Consolidation of existing infrastructure.
- 1.2 Reorganisation and streamlining of the secondary stage by having specialised senior secondary schools separately for science, humanities, commerce, fine arts and vocational courses.
- 1.3 Diversification of courses of studies at the senior secondary stage proposed to be done by introducing studies of following selected courses such as fine arts, introducing computer science, music and dance, new vocational courses etc.

#### 2.0 INTRODUCTION OF VOCATIONAL COURSES :

- 2.1 Vocationalisation of 5 out of 10 existing Govt. Senior Secondary Schools.
- 2.2 Upgradation of 5 secondary schools to senior secondary schools ensuring studies of only following vocational courses.
  1. Office management and secretarial practices.
  2. Basic electrical technology.
  3. Basic electronics.
  4. Computer studies Technology/Technique.

3.0 **BUILDING INFRASTRUCTURE :**

- 3.1 Provision of 5 eleven roomed RCC buildings.
- 3.2 Clearing of the backlog of school buildings in 54 existing secondary schools.
- 3.3 Provision of 18 roomed RCC school building in all the proposed senior secondary schools and Sadam Senior Secondary Schools.
- 3.4 Provision of hostel facilities in Dikling and Sadam Senior Secondary schools and in all the secondary schools proposed to be upgraded to senior secondary school.
- 3.5 Provision of residential staff quarters.

3.6 **PROVISION OF FOLLOWING EDUCATIONAL PHYSICAL FACILITIES**

Type and duplicating machines, furniture, library books, science equipments, Mathematical kit, musical instruments, gardening implements, computer systems, audio-visual aids.

4.0 **INCENTIVE SCHEMES :**

- 4.1 Scholarship for offering vocational & pure science courses at the plus 2 stage.
- 4.2 Merit Scholarship to students who secured first division in class X Board Examination.
- 4.3 Scholarship to girls students studying science, vocational and commerce courses at the plus 2 stage.
- 4.4 Free boarding stipend to girls students and meritorious boy students to facilitate their stay in the hostel provided in their neighbourhood required senior secondary level educational facilities are not available.

An outlay of Rs. 1450 lakhs is required for the sub-sector of secondary education excluding assistance to non-government secondary schools out of which Rs. 750 lakhs is earmarked for meeting salary cost and Rs. 225 lakhs for non-teacher cost and Rs. 475 lakhs as capital cost. Out of Rs. 1450 lakhs, a provision of Rs. 300 lakhs has been proposed for the annual plan 1990-91. The capital content for the same will be Rs. 120 lakhs.

**SCHEME NO: 9****ASSISTANCE TO NON-GOVERNMENT SECONDARY SCHOOLS**  
**Total : Rs. 100 lakhs****SCHEME OBJECTIVES**

In order to encourage private enterprise for promotion of educational facilities, the State Government provides grant-in-aid to secondary and senior secondary schools under non-government management.

The present level of expenditure on providing grant to these institutions has been committed to non-plan. But as these institutions have so far not reached optimum level of development they have to be provided with additional development assistance.

For this purpose, grant as indicated below has been estimated for providing during the Eighth Plan period.

1.0 **ASSISTANCE TO SIR TASHI NAMGYAL ACADEMY**

During 1985-90 T.N.A. the only public school of a high standard in the State and which is cent per cent dependent on government grant, received a grant of Rs. 108 lakhs. For its further consolidation a development grant of Rs. 70 lakhs is proposed for the following purposes.

- 1.1 Capital grant for construction of junior high school block, computer room, administrative block, garage, new toilet blocks, modernisation of drinking water facilities etc. Rs. 40 lakhs
- 1.2 Corpus fund to augment financial resources of the Academy to make it financially self supportive in due course of time. Rs. 25 lakhs
- 1.3 Introduction of vocational courses and diversification of existing courses of studies. Rs. 5 lakhs

**TOTAL** Rs. 70 lakhs.

3.0 **ASSISTANCE TO OTHER NON-GOVERNMENT SCHOOLS :**  
**Rs. 30 lakhs**

A grant of Rs. 25 lakhs is earmarked for a pioneering girls senior secondary school in the State. Out of this outlay Rs. 15 lakhs is meant for capital and Rs.

10 lakhs for revenue. Rs. 5 lakhs is earmarked for providing grant to other new non-government schools.

A total provision of Rs. 100 lakhs has been made for the scheme No.9 for the period of Eighth Five Year Plan, out of which Rs. 30 lakhs will be for the annual Plan 1990-91.

#### SCHEME NO. 10

### VOCATIONALISATION OF EDUCATION

**Revenue: Rs. 75 lakhs**

**Capital: Rs. 75 lakhs**

**Total: Rs. 75 lakhs**

A drastic reorientation of the present system of education that doesn't prepare the students for the world of work, is required to be strengthened in terms of vocational education at the plus 2 stage. This is needed to divert bulk of students towards job oriented education; there by allowing only truly meritorius students to proceed to higher education in Arts, Science & Engineering.

Vocational programmes are proposed to be arranged for the school drop-outs so as to make them useful members of society. Their programmes would also include an element of academics, there by, improving their employability. It is proposed to establish vocational schools and to take over training function of the existing training centres, under the overall supervision of the Education Department.

It is proposed to continue utilising the highly technical & sophisticated apprenticeship facilities of SITCO (for Horology & Electronics), Sikkim Jewels, Sikkim Breweries, Vanaspati Factory, Sikkim Government Printing Press and other such organisations by providing financial support.

To create job opportunities the Government & Private Sector would be persuaded to come forward to employ such vocationally trained youth as it would encourage more and more youth to take up vocational programmes. The target of 20% laid down by the NPE 1986 for vocationalisation would be achieved by introducing relevant programmes in at least 10 schools, strategy being to upgrade schools only for vocational stream.

An outlay of Rs. 150 lakhs is proposed, of which Rs. 75 lakhs is intended for capital works. A sum of Rs. 30 lakhs is proposed for annual plan 1990-91, the capital content of which will be Rs. 10 lakhs.

#### SCHEME NO: 11

### SIKKIM BOARD OF SCHOOL EDUCATION

**Revenue : Rs. 10 lakhs**

**Capital : Rs. 40 lakhs**

**Total : Rs. 50 lakhs**

The scheme of Sikkim Board of School Education for a long time will continue to play its role of conducting public examination at the primary and middle terminal stages. However there is urgent need for expanding the machinery of the facilities. An outlay of Rs. 50 lakhs is intended to create necessary administrative and technical machinery, construct 3 examination halls in senior secondary schools in the district head quarters and furnish these examination centres at the district level with necessary furniture and equipment. Out of Rs. 50 lakhs an outlay of Rs. 40 lakhs is meant for Capital. An outlay of Rs. 20 lakhs with capital content of Rs. 18 lakhs is proposed for annual plan of 1990-91.

#### SCHEME NO. 12

### CONSTRUCTION OF SC/ST GIRLS HOSTEL

**Total outlay : Rs. 50 lakhs**

**Capital : Rs. 50 lakhs**

Under the centrally sponsored schemes of construction of hostels for scheduled caste/scheduled tribe girls students which is funded on 50 : 50 sharing basis, building of student of scheduled caste and scheduled tribe girls hostels are undertaken. For construction of 3 scheduled caste and 7 scheduled tribe girls hostels during 1990-95 an outlay of Rs. 50 lakhs is proposed as State's share. Rs. 10 lakhs is proposed for the annual plan 1990-91

#### SCHEME NO: 13

### HIGHER EDUCATION

### SIKKIM DEGREE COLLEGE

### DEVELOPMENT OF SIKKIM GOVT. COLLEGE - 1990-95

In the field of Higher Education the state has only three institutions namely Sikkim Govt. College, Sikkim Law College and Sikkim Institute of Higher Nyingma Studies. During the Eighth Plan period further consolidation,

upgradation/modernisation of existing physical facilities of these three institutions is proposed.

The institutionwise major schemes proposed for implementations are as under :

- 1.0 **SIKKIM GOVT. COLLEGE**  
**Revenue : Rs. 50 lakhs**  
**Capital : Rs. 115 lakhs**  
**Total : Rs. 165 lakhs**
- 1.1 By 1995 the enrolment of students in college will increase to 1500 as against 737 in 1989.
- 1.2 Introduction of statistics (pass course) and economics (Honours) and mathematics (Honours) at the under graduate level with creation of six posts of Lecturers, is proposed to be taken up.
- 1.3 For consolidation of existing course of studies six additional posts of lecturers are to be created.
- 1.4 At the post graduate level the new courses proposed to be introduced include, Political Science and English Literature.
- 1.5 Consolidation/Modernisation of Science Laboratory.

**CAPITAL SCHEMES Rs.115.00 lakhs**

The major capital scheme proposed to be taken in Sikkim Govt. College are as under:

- 1.6 Two separate hostels for boys and girls.
- 1.7 Building block for post graduate courses.
- 1.8 Multi purpose auditorium cum-library.
- 1.9 Gymnasium.
- 1.10 An outlay of Rs. 165.00 lakhs is proposed for Sikkim Govt. College out of which Rs. 115.00 lakhs will be capital content. For Annual Plan 1990-91 a provision of Rs. 30 lakhs has been kept with the capital content of Rs. 20 lakhs.

**SCHEME NO: 14**

**SIKKIM LAW COLLEGE**

**Total : 10.00 lakhs**

**Capital : Rs. 5.00 lakhs**

**Revenue : Rs. 5.00 lakhs**

In regard to development of Sikkim Law College the present status is proposed to be maintained except for the creation of 4 posts of lecturers and shifting the institution from the rented accommodation by providing an independent building of its own at the cost of Rs. 5 lakhs. Total outlay proposed is Rs. 10 lakhs out of which Rs. 3 lakhs is proposed for the annual plan 1990-91.

**SCHEME No: 15**

**8.0 SIKKIM INSTITUTE OF HIGHER NYINGMA STUDIES (SIHNS) SHEDA COLLEGE**

**Revenue : Rs.35 Lakhs**

**Capitals : Rs.40 Lakhs**

**Total : Rs.75 Lakhs.**

The Sikkim Institute of Higher Nyingma Studies (SIHNS) popularly known as 'SHEDA' the only learning centre for higher Buddhist Studies particularly in the line of Nyingmapa Sect of Mahayana Buddhism in Sikkim, was established in 1959. The Institute is affiliated to Sampurnanda Sanskrit University, Varanasi. It conducts 9 years course from Purva Madhyama (class IX) to Acharya (M.A.). So far, 402 Lama Students have passed out from Sheda during the period 1986-87 to 1988-89 and 153 students are studying in the present academic session 1989-90. During the 8th Five Year Plan 1990-95, the intake capacity will have to be increased by 25 students per year so that the number reaches 300 by the terminal year of the plan.

The major schemes proposed for implementation are as under :

- 3.1 Enrolment of Sheda college will be increased by the terminal year to 300 from 143 in 1989.
- 3.2 Creation of 9 academic (teaching) and 10 non-teaching posts.
- 3.3 Provision of equipments and materials.
- 3.4 Provision of a vehicle
- 3.5 Enhancing of the rate of stipend from 110/- p.m. to Rs.200/- per month.

**CAPITAL SCHEMES**

As at the present site there is no scope for expansion of college it is proposed to shift it to a new spacious campus, which is being acquired during 1989-90., for the development of building infrastructure of an academic block, 250 bed hostel and necessary staff quarters an outlay of Rs.40.00 lakhs is proposed and revenue outlay of Rs.35.00 lakhs is meant for meeting the salary cost of new posts and other expenditure on vehicle, equipment, library books, furniture and stipends. Out of the total eighth plan provision of Rs.75 lakhs, Rs.17 lakhs is proposed for the annual plan 1990-91, The capital content of which will be Rs.10 lakhs.

**SCHEME NO. : 16**

1. **TEACHER EDUCATION  
DISTRICT INSTITUTE OF  
EDUCATION AND TRAINING**

**Capital : Rs.10 lakhs**

**Revenue : Nil**

**Total : Rs.10 lakhs**

The Ministry of Human Resource Development (Department of Education) have sanctioned the first DIET at the cost of Rs.71.70 lakhs for the North and East districts. Since the capital grant released by the Central Govt. is not sufficient, the cost of building infrastructure development will have to be partially supplemented by the State Govt. In addition to the above, second DIET for the South and West districts is likely to be sanctioned during 1990-91 for which 10 acres of land, free of cost, will have to be provided by the State Govt. For these two purposes an outlay of Rs.10.00 lakhs is proposed for the 8th Plan period. The whole of this amount is proposed to be spent during the annual plan 1990-91.

**SCHEME NO: 17**

2. **DEVELOPMENT AND CONSOLIDATION OF SIERT**

**Revenue : Rs.30 lakhs**

**Capital : Rs.40 lakhs**

**Total : Rs.70 lakhs**

The New Education Policy Strategy aims at massive expansion and strengthening of State Institute of Educational Research and Training, with a view to ensure an overall improvement of the academic standard and teaching learning process and give an upward direction to educational standard. Out of total 8th Plan outlay of Rs.70 lakhs, Rs.15 lakhs is proposed for annual plan 1990-91 the capital content being Rs.10 lakhs.

**THE PRESENT STATUS OF SIERT**

The existing SIERT, is highly deficient in suitably qualified, professionally trained and experienced academic resource persons who can deliver goods to ensure an all-round development of academic standard and teaching learning process and produce teaching materials of quality, textbooks and teacher's guides etc.

Therefore, the unsatisfactory situation demands urgent attention for wide expansion of SIERT and its strengthening with professionally qualified and trained academic resource.

The following development strategies are therefore, proposed for achieving the above objectives :

1. Provision of all necessary physical infrastructure by constructing an independent 50 roomed building with lecture halls, auditorium & laboratories etc.
2. Creation of all necessary departments for various disciplines/areas of education as given below :
  - 2.1 Appointment of suitably qualified and professionally trained, competent academic candidates.
  - 2.2 Appointment of a Director of SIERT.
  - 2.3 Integration of various academic cells in the department i.e. examination, textbooks, languages, education technology and vocational with the SIERT.
  - 2.4 Establishing close linkages between the SIERT and DIET.

For achieving the above objectives an outlay of Rs. 70 lakhs is projected for five years. Out of which Rs.40 lakhs is meant for capital.

**SCHEME NO. 18**

**SPECIAL TEACHER TRAINING  
PROGRAMME:**

**Revenue Rs.50 lakhs**

**Capital : Nil**

As teacher training facilities in the State are at present limited to one DIET which does not cater to the professional needs of pre-schools and language teachers, short term and crash teacher training programme are proposed to be organised to fulfil the professional training needs of 1000 untrained primary teachers, 820 language teachers and 528 pre-school teachers. For the above purpose, an outlay of Rs.50 lakhs has been earmarked, for the 8th plan period, out of which Rs.10 lakhs is proposed for annual plan 1990-91.

**SCHEME NO. 19 :**  
**EDUCATIONAL TECHNOLOGY :**  
**Revenue : Rs. 30 lakhs**  
**Capital : Nil**  
**Total : Rs. 30 lakhs**

The existing physical infrastructure of the Educational Technology Cell is far from satisfactory to play its vital role of mass communication of education delivery system, improving the quality of teaching-learning process and sensitise teaching effect. It has neither its independent building nor audio studio, nor laboratory, photographic cell. Therefore, to provide all these physical facilities for the State cell of Education Technology and equipment with necessary number of T.Vs and VCRs., video films, art materials, 60 mm films and three more E.T. vans and provide audio-visual equipment (video cameras, tape recorders) etc. to each District Education Offices and strengthen administrative and technical machinery of the E.T. Cell, an outlay of Rs. 30 lakhs is proposed to be earmarked for the 8th plan period, out of which Rs. 5 lakhs will be for annual plan 1990-91.

**SCHEME NO: 20**  
**STATE ADULT EDUCATION PROGRAMME**  
**Revenue : Rs. 50 Lakhs**  
**Capital : Nil**

Adult Education Programme comprises of the two components of the State Adult Education Programme funded under the State Sector and centrally assisted Rural Functional Literacy Programme. The State Adult Education Programme is specially designed and tailored to fulfil the literacy needs of adult women learners.

At the rate of an annual target of 100 centres and 1000 learners, during the 8th Plan Period 1990-95 targets of 500 SAEP centres and 5,000 learners and financial target of Rs. 50 lakhs are proposed.

To the learners of the State Adult Education Programme and Rural Functional Literacy Programme, textbooks and stationery will continue to be provided free of cost. Besides other teaching materials, lighting equipment, recreational equipment and materials will also be provided to the SAEP Centres.

Out of Rs. 50 lakhs proposed for 8th Plan period, Rs. 10 lakhs is proposed for the annual plan 1990-91.

**SCHEME NO: 21**  
**FREE BOARDING & SPECIAL STIPEND :**  
**Revenue : Rs. 30 lakhs**  
**Capital : Nil**  
**Total : Rs. 30 lakhs**  
**SPECIAL STIPEND**

The Education Department awards stipends to students of primary, middle, secondary and senior secondary schools on merit-cum-means basis to promote and encourage education of children belonging to weaker sections including children from families below the poverty line. At the rate of Rs. 100/- per month per head for 10 months of the year for 100 beneficiaries per annum for years a cumulative target of 1500 beneficiaries and financial target of Rs. 15 lakhs is proposed for implementation of this scheme.

**FREE BOARDING STIPEND**

It is awarded to students who belong to weaker sections including children of families below the poverty line to encourage their further education if the required educational facilities are not available within a radius of 5 km of their home. The selected students are awarded lodging and free boarding facilities in schools having hostels. At the rate of Rs. 100/- per month per head for 10 months of the year for 100 beneficiaries per annum for years a cumulative target of 1500 beneficiaries and financial target of Rs. 15 lakhs is proposed for implementation of this scheme.

Out of a combined provision of Rs. 30 lakhs for the whole of the Eighth Plan period for above mentioned two schemes, a provision of Rs. 6 lakhs has been kept for the annual Plan 1990-91.

**SCHEME NO: 22**  
**SCHOLARSHIP FOR HIGHER STUDIES IN PROFESSIONAL EDUCATION AND TRAINING :**  
**Revenue : Rs. 30 lakhs**  
**Capital : Nil**

Since 1954 when the Education Department was established the department has not made any effort to develop human resource in administrative, technical, academic and teaching areas. As a result the Department has all along been facing an acute shortage of technical/academic personnel professionally prepared for shouldering the responsibilities in the administrative, academic and teaching spheres.



The concerted effort of the Department are therefore proposed to be directed towards development of competent and suitable technically trained personnel for the following areas :-

1. Educational Planners.
2. Academicians having post graduate and Directorate qualification in the field of education.
3. Institutional managers/administrative.
4. Teachers for senior secondary, secondary, junior high school, primary and pre-primary stages of education.

For this area detailed manpower planning will have to be done to work out year-wise requirement of technical and professional personnel during the period of Eighth Five Year Plan 1990-95.

For the purpose of developing teacher resource, candidates after class X, XII and graduate level are proposed to be selected and exposed to integrated course of further academic education/remedial coaching to improve their standard in selected subject areas and professional training.

This is to be done by creating and utilising the existing training facilities and sending these candidates to Regional Colleges of Education in a large number for doing 4-6 years of integrated course of higher education and professional training.

Same strategy is proposed to be adopted for developing Human Resource/Manpower of Educational administrators.

For achieving the above objective, an outlay of Rs. 30.00 lakhs is proposed to be earmarked for the Eighth Five Year Plan, out of which Rs. 6 lakhs is proposed for the annual plan 1990-91.

are not available, the State Government awards scholarships on merit cum means basis to local candidates for higher studies in the colleges, institutions and universities outside the State. The Sikkimese candidates are admitted in the institution of higher studies mostly against reserved seats allocated by the Govt. of India in consideration of the educational backwardness of the state and the fact that the Sikkimese candidates have not been able to achieve desirable level of educational standard to compete for admission at the national level. At the rate of Rs.6000 per month per head for 10 months of the year for 25 beneficiaries per annum for 5 years, a cumulative target of 750 beneficiaries and financial target of Rs.50 lakhs is proposed for implementation of this scheme, during the Eighth Plan, out of which Rs.10 lakhs is proposed for the annual plan 1990-91.

**SCHEME NO : 24**

**SCHOLARSHIP FOR STUDIES IN PUBLIC SCHOOLS**

**Revenue Rs. 15 Lakhs,**

**Capital : Nil**

**Total Rs.15 Lakhs,**

As the General Educational Standard of Govt. Institutions has not reached desirable level, the Govt. facilitates education of selected meritorious students in institutions of public school status/standard to develop quality of human resource. At present these students are being schooled at TNA within Sikkim and outside Sikkim at Motilal Nehru School for sports, (Haryana), Sainik School (Goalpara). Continuation of this scheme is proposed during the Eighth Plan also by awarding additional scholarships.

Number of Beneficiaries

Physical

Target

Financial Target Amount

Actual

Cumulative

Actual

Cumulative

100

300

Rs. 5 lakhs Rs. 15 lakhs

**SCHEME NO : 23**

**SCHOLARSHIPS FOR HIGHER EDUCATION :**

**Revenue Rs. 50 Lakhs,**

**Capital Rs.Nil**

**Total Rs.50 Lakhs,**

In Sikkim as facilities for higher education in technical and professional course of studies

Proposed total outlay for Eighth Plan Rs.15 lakhs. Proposed total outlay for Annual Plan 1990-91 - Rs.3 lakhs.

**SCHEME NO : 25**

**SCHOLARSHIP FOR STUDIES IN SIKKIM GOVERNMENT COLLEGE : RS.15 LAKHS**

To encourage the local youth to pursue higher studies in Sikkim Government College,

the State Government has been awarding a special scholarship to almost 75% of the college students @Rs.150/- per student for 10 months. During the 8th Plan, this scheme will be continued with a large scope.

At the rate of Rs.200/- per month per head for 10 months of the year for 50 beneficiaries per annum for five years, a cumulative target of 750 beneficiaries and financial target of Rs.15 lakhs is proposed for implementation of this scheme, during the Eighth plan period and Rs.3 lakhs during the 1990-91 Annual Plan period.

**SCHEME NO: 26**

**SCHOLARSHIP TO GIRL STUDENTS FOR STUDIES AT SECONDARY AND SENIOR SECONDARY STAGES**

**Rs. 10 Lakhs,**

As the participation percentage of girl students sharply declines at the secondary and senior secondary level the Department proposes to implement various incentive schemes to encourage girls education at the secondary and senior secondary levels. For this purpose special scholarships are proposed to be awarded. For implementation of this scheme an outlay of Rs. 10 lakhs is intended to cover a cumulative physical target of 1500 beneficiaries in 5 years at the rate of Rs. 100 per head for 10 months for 100 beneficiaries per annum.

Out of total provision of Rs. 10 lakhs for 8th Plan period Rs. 2 lakhs is proposed for the annual plan 1990-91.

**SCHEME: 27**

**DIRECTION AND ADMINISTRATION**

**Revenue : Rs. 100 lakhs**

**Capital : Rs. 25 lakhs**

**Total : Rs. 125 lakhs**

Since the State joined the national main stream, expansion of education has been manifold. During the period under review, 997 new educational institutions were established, 4739 teachers were appointed and 68,240 students enrolled in schools. In the field of higher education a full-fledged Sikkim Government College and Sikkim Law College came into being and many educational programmes, schemes and projects were launched.

But the administrative and supervisory set-up of the Department of Education remained at the level of its development during the fifth plan. Since the re-organisation of the Department has already been delayed by al-

most a decade, it is high time it is re-organised and streamlined to make administration and planning effective and purposeful. Therefore following schemes are proposed for implementation during the Eighth Plan :

1. Creation of planning, administrative and supervisory set-up for the sectors of elementary, secondary, higher and technical education with full complement of managerial and secretarial support for the sub-sectors of pre-school, primary, junior, high, non-formal, secondary, senior secondary and vocational education.

In addition to the above, expansion and strengthening of the planning, statistical and monitoring division, account section engineering cell and various sections of district education offices is envisaged. As establishment of 4 education offices at the sub-divisional level has already been delayed by more than eight years, this scheme can not be further postponed. Therefore its implementation is envisaged during the first year of the Eighth Plan.

To upgrade professional competence of educational planners and administrators, they are proposed to be exposed to professional training and orientation.

For the sector of direction and administration, therefore, an outlay of Rs. 125 lakhs is projected which includes Rs. 100 lakhs earmarked for Revenue expenditure and Rs. 25 lakhs for capital for the whole of 8th Plan period. During the annual plan 1990-91, Rs. 30 lakhs is proposed, out of which Rs. 10 lakhs will account for the capital.

**PHYSICAL EDUCATION**

**GAMES/SPORTS AND YOUTH WELFARE**

**Revenue : Rs. 240 lakhs**

**Capital : Rs. 275 lakhs**

**Total : Rs. 515 lakhs**

The Games, Sports/Physical Education and Youth Welfare Sector which was created only in 1976, received a big boost during the Sixth and the Seventh Plans. Since then it has developed many fold in terms of programmes and activities, physical infrastructure and equipment and materials. It is also suitably manned with the competent technical human resource to administer, manage, supervise, conduct and organise, programmes and activities. But this sector still requires a major build up in the following areas, requirements of which are reflected below :

1. Strengthening of administrative, supervisory, monitoring and technical machinery at the state, district and institutional level.

2. **Promotion of Sports in Schools.**

In keeping with the New Education Policy, sports and physical education activities in schools would be given emphasis in terms of :

- 2.1 Activities in schools.
- 2.2 Participation of students at District/State/National level.
- 2.3 Provision of physical training instructor to all senior secondary schools.
- 2.4 Special development of selected schools which would function as a sports sub-centre.

3. **Proposed infrastructure development during the Plan Period :**

- (i) Development of Paljor Stadium Complex.
- (ii) Creation of gymnasiums (one in each district).
- (iii) Development of Utility Halls in sports sub-centres.
- (iv) Construction of Utility Stadia in each district.
- (v) Development of Playfields.
- (vi) Establishment of a sports complex at Sikkim Govt. College consisting of a 400 m track, a standard sized swimming pool and a gymnasium.

4. Promotion of Association Sports by providing technical guidance, training, orientation and necessary financial assistance.

The salient schemes / programmes for development of games and sports sector are as under :

**SCHEME NO: 28**

1. **DEVELOPMENT OF ADMINISTRATIVE AND TECHNICAL MANPOWER; Rs. 40 lakhs**

Appointment of 4 assistant directors, 4 district sports officers and 15 Physical Training Instructors at the total salary cost of Rs. 40 lakhs is proposed during the 8th plan period. Rs. 10 lakhs is proposed for the annual plan 1990-91.

**SCHEME NO: 29**

**YOUTH WELFARE PROGRAMMES : Rs. 50 lakhs**

An outlay of Rs. 50 lakhs is earmarked for the schemes of Youth Camps, National Service Scheme (state share) National Cadet Corps, educational tours, assistance to association of college students, Bharat Scouts & Guides. Out of Rs.50 lakhs, Rs. 10 lakhs is proposed for the annual plan 1990-91.

**SCHEME NO: 30**

3. **SPORTS & GAMES ACTIVITIES : Rs.150 Lakhs**

An outlay of Rs.150 lakhs is intended for the schemes of supply of games & sports materials to schools, conduction and organisation of games & sports activities at the state, district, school complex and institutional levels and training and orientation of technical manpower (administrative officers, coaches and physical training instructors). Out of Rs.150 lakhs for 8th Plan, Rs.25 lakhs is proposed for the annual plan 1990-91.

**SCHEME NO: 31**

4. **DEVELOPMENT OF INFRASTRUCTURE : Rs. 275 Lakhs**

The games & sports infrastructure so far developed still requires a major build up and net-working. Therefore, the following projects are intended to be implemented during the Eighth Plan :

1. Development of playfields in junior high schools under centrally sponsored schemes on matching share basis: Rs. 7 lakhs
2. Development of Paljor Stadium under SDPA Scheme of SAI on 50:50 sharing basis: Rs.100 lakhs.
3. Development of 4 utility stadia under CSS on matching share basis: Rs. 40 lakhs.
4. Development of utility halls: Rs.8 lakhs.
5. Development under CSS, a Sport. Complex at Sikkim Govt. College (Tadong) with 400 metre track, a standard size swimming pool and a gymnasium: Rs.50 lakhs.

6. Development of sports complex at White Memorial Hall: Rs.35 lakhs.
7. Development of a playground at the Sikkim Guards complex: Rs.15 lakhs.

Thus for the sector of games & sports physical education and youth welfare a total outlay of Rs.515 is proposed out of which Rs.275 lakhs is exclusively intended for capital projects. A provision of Rs.55 lakhs is proposed for the annual plan 1990-91.

### TECHNICAL EDUCATION

The Education Department has been entrusted with the responsibility of Technical Education and long term technical manpower Planning for the first time in 89-90. Prior to this the Department was implementing programmes of Socially Useful Productive Works, Vocational Education at the Secondary and Senior Secondary level and Industrial Training Institute (Rongpo) taken over from the Industry Department.

The following programmes are proposed to be taken up:

#### SCHEME NO: 32 DIRECTION & ADMINISTRATION Rs: 10 Lakhs

For the purpose of management, supervision, planning and monitoring, an administrative set up is also proposed to be created for the sector of technical education, for which an outlay of Rs. 10 lakhs is proposed for the 8th Five Year Plan. Amount proposed for the annual plan 1990-91 is Rs.2 lakhs.

#### SCHEME NO: 33

#### ESTABLISHMENT OF A TRAINING SERVICE-CUM-PRODUCTION CENTRE IN SIKKIM: Rs : 550 Lakhs

At the moment the build up of technical manpower has not received adequate attention in the State. The only technical training institute namely the ITI at Rongpo has not been able to satisfy the technical manpower requirements of the State. There has been no proper long term technical manpower planning as a result of which there is a serious mismatch

between the outputs from educational institutions and the requirements of the employment market. The State is already experiencing situation where graduates in Humanities are coming out in increasing number without the prospect of gainful employment in the State. On the other hand, the technical manpower required not only in Govt. departments but also in the industries which have been established and are likely to come up in the near future, are not available. Further, for the industries which are precision oriented such as electronic units, the jewels unit and others, specialised manpower is required and a common facility capable of satisfying the requirements of these and other industries for tools and dies is also necessary for the State. The absence of such facilities compels these industries to rely on outside sources for even minor requirements and the down time of machines becomes unnecessarily large.

Taking into consideration all these factors, the Govt. of Sikkim invited a team from the NETTUR Technical Training Foundation, Bangalore to study all the requirements of training, tool room facilities and advice as to the kind of institutional frame work that needs to be created so that the State gradually becomes more and more self reliant in regard to vital trades. The NTTF have on the basis of their study suggested that an institution to take care of requirements in the field of mechanical engineering, civil as well as electrical and electronics need to be established. The training division will be combined with the servicing division to cater to the maintenance and service needs of the industries in terms of machines, tools etc. To see that the trainees are also exposed to the actual production function and the institution also generates a certain amount of revenue, a production division has also been suggested which will provide machinery services on precision machine tools undertake manufacture of jigs, fixtures, gauges, automation aids, standard elements such as guide bushes, locators, clamps etc. and provide tool room back up for all the industries. Some special cutting tool requirements can also be provided for. A metrology and testing laboratory as well as heat treatment shop has also been proposed as part of the complex.

NTTF will provide assistance in formulating training schedules, training syllabi, training manuals as also provide the training personnel. Further assistance for establishing the service-cum-production centre will also be provided. Pending establishment of the institution, NTTF can provide training slots for candidates from Sikkim.

The Education Department has now been made responsible for technical education and long term technical manpower planning and the industrial training institute at Rangpo which was earlier being managed by the Labour Department has been handed over to the Education Department. The facilities available in the ITI are outdated and do not cater to some of the needs of the State. Modernisation of the ITI is considered essential.

Both the above steps namely establishment of a training service and production centre as well as modernisation of the ITI will go a long way in making available trained technical manpower to satisfy the requirements of the State. For the above scheme a total amount of Rs.550 lakhs is proposed out of which Rs.500 lakhs is for the training service and production centre while Rs.50 lakhs is for the ITI. The capital component of this will be approximately Rs.400 lakhs. A provision of Rs.115 lakhs has been proposed for the annual plan 1990-91 the capital content of which will be Rs.100 lakhs.

#### SCHEME NO : 34

### ESTABLISHMENT OF A COMMUNITY POLYTECHNIC

Rs.140 lakhs.

It is considered appropriate to pay special attention to technical training of women in selected areas. Polytechnics for women have been a success elsewhere in the country.

Only few chosen and relevant disciplines like Dress Making and Designing, Food Processing, Preservation and Marketing, Commercial Art and Interior Decoration, Radio and Television Technology, Stenography, Typing and Office Management, Civil Engineering, Mechanical Engineering, Electrical Engineering and Computer Application will be taken up.

An outlay of Rs.140 lakhs is proposed for establishment of a community polytechnic out of which Rs.100 lakhs is earmarked for construction of building infrastructure. Subject to availability of land, polytechnic is proposed to be established at Gangtok. A provision of Rs.33 lakhs is proposed for the annual plan 1990-91, the capital content of which will be Rs.25 lakhs.

## DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN 1990-91

## HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE

Statement GN - 2

## DEPARTMENT : EDUCATION DEPARTMENT

(Rs. in Lakhs)

Code No.	Name of the Scheme/Project	Seventh Plan Outlay (1985-90)	Expenditure 1985-90 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which Capital content	Annual Plan 1990-91 proposed outlay	Of which capital content
1	2	3	4	5	6	7	8	9
221000000	EDUCATION							
221220200	General Education							
01	Elementary Education	1274.00	1617.80	538.00	2550.00	775.00	400.00	112.00
101	Govt. Primary Schools							
	I) Pre-Primary Schools	140.00	70.11	50.00	350.00	225.00	52.00	30.00
	II) Primary Schools	464.00	663.92	210.00	740.00	240.00	125.00	35.00
	III) Junior High Schools	370.00	624.82	198.00	1050.00	300.00	160.00	45.00
102	Assistance to Non-Govt. Primary & Monastic School	—	6.26	5.00	170.00	—	20.00	—
105	Non-formal Education	50.00	5.64	10.00	50.00	—	8.00	—
108	Purchase & publication of text books	250.00	247.05	65.00	155.00	10.00	30.00	2.00
800	Other Expenditure							
	i) work Experience	—	—	—	35.00	—	5.00	—
02	Secondary Education	845.00	932.91	321.25	1960.00	690.00	293.00	102.00
103	Vocationalisation of Education	90.00	19.54	12.00	150.00	75.00	15.00	8.00
105	Teachers Training	205.00	79.74	26.25	160.00	50.00	24.00	—
	i) Dist. Institute of Education+Training	85.00	15.32	6.00	10.00	10.00	2.00	—
	ii) State Institute of Education of Research Training	60.00	39.21	11.00	70.00	40.00	11.00	—
	iii) Educational Technology	20.00	16.12	6.00	30.00	—	6.00	—
	IV) Special Teachers Training Programme	40.00	9.09	3.25	50.00	—	5.00	—
03	Higher Education	185.00	120.00	30.00	250.00	160.00	39.00	22.00
103	Govt. Colleges & Institutes	185.00	120.00	30.00	250.00	160.00	39.00	22.00
	i) Sikkim Govt. College	170.00	109.26	25.00	165.00	115.00	25.00	15.00
	ii) Sikkim Law College	15.00	10.74	5.00	10.00	5.00	2.00	1.00
	iii) Institute of Higher Nyingma Studies SHEDA	—	—	—	75.00	40.00	12.00	6.00
04	Adult Education							
200	State Adult Education Programme	50.00	12.45	10.00	50.00	—	8.00	—
06	General	150.00	170.82	45.00	275.00	25.00	46.00	5.00
001	Direction & Admn.	60.00	84.78	21.00	125.00	25.00	20.00	5.00
107	Scholarships & stipends	90.00	86.04	24.00	150.00	..	26.00	..
	i) Free Bording stipends	15.00	3.69	3.00	30.00	..	4.00	..

DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN 1990-91

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HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE Statement GN-2

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DEPARTMENT : EDUCATION DEPARTMENT (Rs. in Lakhs)

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Code No.	Name of the Scheme/Project	Seventh Plan Outlay (1985-90)	Expenditure 1985-90 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which Capital content	Annual Plan 1990-91 Proposed Outlay	Of which capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	ii. Scholarship for Higher studies in professional Education & Training	..	..	..	30.00	..	5.00	..
	iii. Scholarship for Higher Education	55.00	62.53	14.00	15.00	..	10.00	..
	iv) Scholarship for studies in Public School	15.00	12.24	5.00	15.00	..	3.00	..
	v) Scholarship studies in Sikkim Govt. College	5.00	7.58	2.00	15.00	..	2.00	..
	vi) Scholarship for Girls in Secondary & Senior Secondary stages	..	..	..	10.00	..	2.00	..
221220300	Technical Education	..	..	..	700.00	100.00	92.00	20.00
001	Direction & Admn.	..	..	..	10.00	..	2.00	..
103	Estt. of Training cum service & production ITI Rangpo	..	..	..	550.00	..	70.00	..
105	Estt. of community Polytechnic	..	..	..	140.00	100.00	20.00	20.00
221220400	Sport & Youth Service	140.00	108.97	39.00	515.00	275.00	71.00	25.00
001	Direction & Admn.	..	..	..	40.00	..	6.00	..
102	Youth Welfare Programme	55.00	31.54	12.00	50.00	..	12.00	..
104	Sports, & Games	85.00	77.43	27.00	150.00	..	28.00	..
800	Other Expenditure (Dev. of Infrastructure)	..	..	..	275.00	..	30.00	25.00
	<b>Total</b>	<b>2640.00</b>	<b>2962.95</b>	<b>983.25</b>	<b>6300.00</b>	<b>2050.00</b>	<b>949.00</b>	<b>360.00</b>

## CHAPTER XXII

**Art And Culture**

1. The organisation of the Department in its present form and structure was initiated during the 5th Plan period. During the 6th and 7th Plan period, the main areas of activities were promotion and preservation of the fine cultural heritage of Sikkim, conservation of the archaeological treasures of Sikkim, participation in cultural festivals and encouragement of talent in fine arts.

2. In the absence of any private cultural organisation a full fledged Dance & Drama Unit was set up. The Archaeological Section and Archives Cell and Composite Library/Community Hall were also established. Over the years, the expertise has developed considerably and both professional and technical expertise have been improved upon.

3. The Department has a full fledged Dance & Drama Unit which has won wide acclaim for its performance both in and outside the country. The cultural troupe from the State has participated in the festival of India in the USA and the USSR as also in the festival held at Harare and Guyana apart from the festivals organised by the EZCC and Apna Utsav. Community Centres have been developed and adequately equipped to cater to the performing arts.

4. The Archaeological cell has undertaken considerable work in the restoration, preservation and up-keep of monasteries, mendangs and other places of cultural heritage.

5. During the 7th plan period, the State became the member of the EZCC and made a contribution of Rs.85 lakhs towards the corpus fund of Rs. 1 crore. The shortfall is proposed to be made up in the 8th plan period. Sikkim became a member of the Sangeet Natak Academy and participated in the Inter State Exchange of Cultural Troupe.

6. The Community Halls at Gangtok and Namchi were given a face lift and necessary amenities were provided so as to cater to the requirements of the public there. Suitable land was purchased at Gyalshing in West Sikkim and work was initiated for the construction of

community centre at Gyalshing to meet the requirements of the district headquarters of West Sikkim.

7. Grants-in-aid were made available to various organisations for the celebration and organisations of the important festivals in the State.

8. The Archaeological Section was able to record substantial achievements, with the restoration of the very old and important monasteries of Labrang, Phodong, Pemayangtse, Tashiding, Sinon, Karthok, Tholung, Lingthem and many other Mendangs and Mani Lhakhangs. Specifically, the expertise of the NRLC was also availed for the extraction of the priceless paintings of Sinon Monastery and their restoration. Most of the works have been completed and only a few schemes need to be carried over to the 8th Plan.

9. With the shifting of the Sikkim Legislative Assembly to the new premises, the old Assembly Building has been taken over for its renovation and conversion into a Museum-cum-Archives complex. Training was also imparted with the help of National Archives in the Government of West Bengal to local officers. The Department of Culture has been playing a very significant role in the preservation and development of the cultural heritage of the State.

10. Keeping in mind the experiences of the previous plan periods it is proposed to concentrate on the following programmes during the 8th Plan period.

- (a) Strengthening of the administrative structure of the Department with induction of more technical and professionally qualified personnels.
- (b) Establishment of a State Museum.
- (c) Establishment of a State Library.
- (d) Establishment of multi-purpose Community Centre in the remaining district of Gyalshing and initiation of similar projects at the sub-division headquarters.



- (e) Strengthening of the Archaeological and Archives Section with special emphasis on Sikkim's rich monastic traditions.
- (f) Consolidating and strengthening the Song & Drama Unit of the Department with a view of excellence in the fine arts.
- (g) Construction of auditoriums to cater to the need of performing arts.
- (h) Setting up of Research Cell which will function as the core centre for authentic accounts of the history and culture of the State.

The proposals for the 8th Plan are detailed below:

#### I STRENGTHENING OF ADMINISTRATION STRUCTURE

**Eighth Plan: Rs. 12.50 lakhs**

**Annual Plan 1990-91 : Rs. 2 lakhs**

The Department of Culture has been playing an increasingly important role in the promotion of the performing arts as well as in the preservation and restoration of ancient monuments etc. in the State. Added responsibilities over the years call for a degree of professionalism and hence it is proposed to create some posts and appoint persons well versed in all the various aspects of the functioning of the Department. In particular, it is proposed to create a technical cell in the Department to look after the ongoing and proposed renovation/restoration works. The proposal includes creation of the post of 1 Assistant Engineer, 2 Junior Engineers and 1 Preservation/Conservation Assistant. The conservation work being of specialised nature, it is seen that this cannot be undertaken through the normal agencies and hence it is imperative to set up a specialised cell, failing which much will be lost. A research Centre with a Research Officer and at least 2 assistants is also proposed to be set up as the Centre will be able to make an indepth study of the culture and traditions of the State in all its manifestation with a view to ensuring the preservation, promotion and presentation of the authentic culture of the people of the State.

#### II ARCHIVES MUSEUM

**Eighth Plan: Rs. 110.00 lakhs**

**Annual Plan 1990-91 : Rs. 17 lakhs**

The State Government has handed over former State legislative Assembly Complex at Gangtok to the State Culture Department and it is proposed to convert this into a full-fledged State Museum. The Museum is proposed to be set up with the help of the National Museum as well as other experts in the field. The Indian National Trust for Art and Culture is expected to provide expert assistance.

#### III ESTABLISHMENT OF STATE LIBRARY

**Eighth Plan: Rs. 25 lakhs**

**Annual Plan 1990-91 : Rs. 4 lakhs**

The State does not have a full fledged State Library and the present Community Centre at Gangtok has been stocked with books to cater to the reading public. With the growing demand it is proposed to set up a full fledged State Library which should be the repository of books collected by the Department over the years.

#### IV ESTABLISHMENT OF MULTI-PURPOSE COMMUNITY CENTRE

**Eighth Plan: Rs. 100 lakhs**

**Annual Plan 1990-91 : Rs. 15 lakhs**

In keeping with the growth of the Capital, it is found imperative to construct a full-fledged auditorium in the city. This has become necessary as there was no facilities available for cultural programmes as also for seminars, meetings etc. where large gatherings have to be accommodated. The existing Community Centre built in the late sixties has very limited capacity and is totally inadequate to meet the demands of the present times. With large number of dignitaries coming to the Capital as also the necessity of holding various cultural shows, the construction of a new auditorium is unavoidable. At the end of the 7th Plan period 1985-90, a Community Hall has been provided

at Namchi in South Sikkim and work on the Community Centre at Gyalshing was initiated. The proposal of the Department is to construct a multi-purpose Community Centre in all the district headquarters and hence we propose to complete the one at Gyalshing.

#### V STRENGTHENING OF ARCHAEOLOGICAL AND ARCHIVES SECTION

**Eighth Plan : Rs. 125 lakhs**  
**Annual Plan 1990-91 : Rs.20 lakhs**

The Archaeological cell of the Department has to be sufficiently geared up as it has the important responsibility of preserving the unique monastic traditions of the State as manifested in the large number of monasteries, stupas, mendangs etc. These are national treasures which give Sikkim its unique cultural flare. It is proposed to set up a regular technical cell to meet up the challenges. The cell will function along the lines of the Archaeological Survey of India and other technical bodies like the N.R.I.C.C. both of which have been associated with many projects in the State.

#### VI CONSOLIDATING THE SONG & DRAMA UNIT:

**Eighth Plan : Rs. 130 lakhs**  
**Annual Plan 1990-91 : Rs.21 lakhs**

The Song & Drama Unit of the Department has assumed importance with the emphasis

being given to cultural festivals, inter state exchange of cultural troupes and programmes connected with local and national festivals. The unit is proposed to be equipped with all the traditional costumes, instruments and other materials so that it is sufficiently geared up to travel anywhere in the country without any hindrance. Apart from actual performances, the programme of augmenting the collection of folk traditions as well as doing research on it will be continued. It is also proposed to celebrate various festivals within the State at the district level and also make available the services of the cultural troupe to various educational institutions of the State. Schemes will also be initiated to extend assistance to local cultural organisations and talented artistes so that we will be able to fall back on them should their services be required.

#### VIII PUBLICATION OF GAZETTEER

**Eighth Plan : Rs.5 lakhs**  
**Annual Plan 1990-91 : Rs.1 lakh**

The work of compilation and preparation of the manuscript of the gazetteer has been completed. The manuscript was scrutinised by an expert committee. Once the manuscript is rewritten it will be printed for publication. A sum of Rs.5.00 lakhs has been provided for this work.

Out of Rs.507.50 lakhs proposed for Eighth Five Year Plan, Rs. 80.00 lakhs has been provided for Annual Plan 1990-91. Schemewise details are given in statement GN-2.

## DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN 1990-91

## HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE

Statement GN—2

## DEPARTMENT : ART &amp; CULTURE

( Rs. in Lakhs )

Code No.	Name of the Scheme/Project	Seventh Plan Outlay (1985-90)	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which Capital content	Annual Plan 1990-91 Proposed Outlay	Of which capital content
1	2	3	4	5	6	7	8	9
<b>221220500 ART &amp; CULTURE</b>								
001	Direction & Admn.	5.00	5.41	1.75	12.50	—	2.00	—
102	Promotion of Art & Culture	50.00	111.49	47.00	230.00	100.00	36.00	10.00
103	Archeology	65.00	63.25	23.75	125.00	—	20.00	—
104	Archives/Museum	18.00	1.95	2.00	110.00	100.00	17.00	15.00
105	Public Library	15.00	8.80	3.00	25.00	—	4.00	—
800	Other Expenditure	7.00	11.53	12.50	5.00	—	1.00	—
<b>Total</b>		<b>160.00</b>	<b>202.43</b>	<b>85.50</b>	<b>507.50</b>	<b>200.00</b>	<b>80.00</b>	<b>25.00</b>

## Medical And Public Health

The programme in the Health Sector are calculated to provide a comprehensive package of services to the entire population to bring about substantial improvements in their health status. The curative and preventive aspects need to be taken care of adequately and the creation of the required infrastructure in terms of health centres, district hospitals, provision of adequate personnel, equipments and medicines have all to be catered to.

A review of the status of the health services in the State would indicate that while in terms of physical facilities such as hospitals, there is now a satisfactory spread, the situation in regard to provision of equipments and personnel needs to be improved very substantially. Further, concrete efforts are required to improve the situation relating to life expectancy, infant mortality, control of communicable diseases, care of children and expectant mothers as also aspects such as environmental hygiene. More importantly, the control of the growth of population needs to be accorded extremely high priority.

Infant mortality is estimated to be 96 per 1000. The incidence of morbidity due to Tuberculosis, Iodine Deficiency Disorders etc. is also very high needing specific attention. The birth and death rate in Sikkim are estimated to be 33.30 per 1000 and 10.40 per 1000 and consequently there is a very high rate of growth of population per annum. However, the Family Planning Programme is being implemented as a people's programme with their voluntary participation. The couple protection rate is also very low estimated to be only 15 percent. Though female education has recorded significant increases, in the past 10 years, it is still much lower compared to some of the advanced States. Through the Universal Immunization Programme launched in 1986-87, the department aims to protect 85 percent of the children below 1 year of age against the six killer diseases.

Programmes for health coverage will have to take into account all these factors and definitive measures taken to ensure adequate spread of health facilities, improvement of quality of services by providing the necessary equipments and well qualified medical and para medical personnel as well as steps to improve the situation in regard to life expectancy, birth and death rates, infant mortality, incidence of various diseases and the status of women as far as health is concerned.

Given these considerations and the overall situation as regards health programmes, the strategy to be implemented during the 8th Plan will have to be on the following lines:-

- (1) Consolidation of the gains made during the 8th Plan particularly in terms of the spread of infrastructure.
- (2) Improvement in the quality of services by providing the equipments that is required in the various PHCs, PHSCs, District Hospitals etc. and augmenting the personnel in all these areas.
- (3) Establish a well equipped central referral hospital in Gangtok so that the present tendency of having to send the patients outside the State is to a very large extent eliminated. This is particularly important as the present hospital is more than 50 years old in an extremely old building and is heavily over crowded. The building itself has been built without adequate considerations of the requirements of a proper hospital as at that point of time the functional requirements of a modern hospital were not appreciated.
- (4) Institute a proper system of manpower planning so that adequate provision of Specialists, para medical staffs etc. can be made on a planned basis and for this purpose proper coordination between the education and training programmes be established.

- (5) While providing equipments to the hospital, adequate attention is also paid to basic facilities in hospitals such as proper drainage, clean surrounding, sanitary facilities, laundry and disposal arrangements and adequate hospital beds.
- (6) Coordination of the activities of the Health Department with that of other Government departments responsible for clean drinking water, environmental hygiene etc.
- (7) Lastly, specific programmes in regard to control of tuberculosis, goitre, aids and mental and dental health programmes as well as continuing the on going programmes for control of leprosy, blindness, diarrhoea etc.

## I. DIRECTION AND ADMINISTRATION

**Eighth Plan : Rs. 220.50 lakhs**

**Annual Plan 1990-91 : Rs. 50 lakhs**

Apart from meeting the requirements of administrative expenditure in regard to expansion and upgradation of services, provision under this head are used to cater to the provision of equipment in the hospitals.

While there has been an expansion in the infrastructure of the health department, and PHCs and PHSCs have been established even in the remoter areas of the State, the general situation regarding availability of equipment not only in the PHCs and the PHSCs but even in the District hospitals and the Central Referral Hospital is extremely unsatisfactory. A very comprehensive assessment of the situation was undertaken in consultation with the CMOs of all the districts and the Specialists at the STNM hospital, and the absolute minimum requirements in terms of equipment for each of the hospitals etc. arrived at. It is felt that this requirement has to be catered to during the 8th Plan if we are to provide minimum standards of service to the people in the State.

The following paragraphs indicate the requirements:-

### EQUIPMENTS

The apex Referral Hospital at Gangtok is now in a position to offer all speciality services and one super speciality (Cardiology) as more Post Graduate Doctors have been inducted. Of the four district hospitals, one district hospital at Namchi already has specialist services and during the 8th Plan period, all the remaining district hospitals will be upgraded to offer secondary medical care.

The equipments available till now however is woefully inadequate and it is envisaged that during the 8th Plan period all specialities would be provided with the basic and essential equipments.

Although the requirement for the Central Referral Hospital alone is assessed to require about Rs.3.00 crores, it is proposed to meet the requirement in a phased manner and during the 8th Plan, about 40-50 percent would be met. The financial implication works out to about Rs. 138.10 lakhs for the 8th Plan period of (Annexure 'A').

The requirements of equipment in the four District hospitals is calculated to be of the order of Rs.150.00 lakhs. Against this requirement it is proposed to go in for the most essential ones during the 8th Plan with a provision of Rs.58.00 lakhs (Annexure 'A').

The total financial implication towards procurement of equipment is about Rs.196.10 lakhs at prevailing prices.

The Planning Section of the Directorate is to be further strengthened and a proper planning, monitoring and training cell is proposed and creation of posts of a Planning Officer, one Research Officer and two Statistical Assistants have been projected in addition to the procurement of a Computer.

No expansion of the administrative organisation has been proposed in order to contain establishment cost except for the creation of one post of Administrative Officer/Under Secretary.

A full fledged Drug Control unit is also to be started in view of enforcement of the Drugs and Cosmetics Act and financial outlay proposed is Rs.8.00 lakhs.

Due to the lack of a maintenance and repair workshop, a large number of equipments of the hospitals have been lying idle. The State being land locked and inaccessible especially during the monsoons, it has been found expedient that a well trained Electronic/Mechanical Engineer should head a Mechanical/Technical workshop who would oversee repair and maintenance of equipments.

The total projection for the 8th plan is Rs.220.50 lakhs.

1. Establishment of Planning Cell, Drug Control Unit, Mechanical Cell etc. — Rs.24.50 lakhs
  2. Purchase of Equipment for C.R.H. and District Hospital — Rs.196.00 lakhs
- Total — Rs.220.50 lakhs

## ANNEXURE 'A'

### BUDGETARY ALLOCATION FOR PROCUREMENT OF EQUIPMENTS DURING THE 8TH PLAN

#### A. CENTRAL REFERRAL HOSPITAL:

(Rs. in lakhs)

1. General Surgery — 10.00
2. Orthopaedics — 10.00
3. E.N.T. — 5.00
4. Forensic Medicine — 12.50
5. Transfusion Medicine — 5.00
6. Pathology — 6.20
7. Dermatology — 2.50
8. Gastro Enterology Unit — 9.00
9. Anaesthesia — 4.00
10. (i) Ultra Sound Consumables — 0.20
- (ii) Ultra Sound Portable — 5.00
- (iii) Ultrasonic Endoscope — 14.00
11. Ophthalmology — 30.00
12. I.C.C.U. — 10.00
13. Radiology — 2.00
14. Dental — 5.00
15. Paediatrics — 1.00
16. Gynaecology & Obst. — 6.70

Total: Rs. 138.10 lakhs

## ANNEXURE 'A',

#### B. DISTRICT HOSPITALS

1. Namchi — Rs.25.00 lakhs
  2. Gyalshing — Rs.15.00 lakhs
  3. Singtam — Rs.10.00 lakhs
  4. Mangan — Rs.8.00 lakhs
- Total — Rs.58.00 lakhs

Grand total : Rs.138.10 lakhs + 58.00 lakhs  
=Rs.196.10 lakhs

## ANNEXURE 'A',<sub>2</sub>

Particular	Outlay proposed	Remarks
1. Salaries	Rs.6.00 lakhs	Creation of post of one Planning Officer, one Research Officer and two Statistical Assistants.
2. Office Expenses	Rs.2.50 lakhs	Survey/Study etc.
3. Material/equipments	Rs.1.50 lakhs	Purchase of Computer etc.
	Rs.10.00 lakhs	

#### B. CREATION OF POST OF ONE ADMINISTRATIVE OFFICER/UNDER SECRETARY

Scale - 182 1.55

#### C. DRUG CONTROL UNIT

The following expenditure is proposed to be incurred during the 8th Plan period 1990-95.

##### 1. DRUG INSPECTORS

Scale Rs. 1820-3200 Rs.3,25,000.00  
(Two posts) (Gazetted scale as per the Central Government Norms)

##### 2. L.D.C.-CUM-TYPIST

(ONE POST)  
Scale Rs.975-1550 Rs. 90,000.00

##### 3. PACKER (ONE POST)

Scale Rs.800-1060 Rs. 85,000.00

4. Expenditure on Office expenses & Miscellaneous etc. Postal charge etc. Sample despatch for test Analysis	Rs. 100,000.00
Printing of Licence form Expenditure for test purchase of medicine. Advocate fees for legal matter	
5. Purchase of Machinery equipment	Rs. 50,000.00
6. Travelling allowance for Drug Inspector for covering 4 districts	Rs. 25,000.00
7. <b>GOVERNMENT ANALYST.</b> Honorarium salary & other incidental/expenditure charges for carrying out analysis work at the laboratory	Rs. 125,000.00
	Rs. 8.00 lakhs

#### D. MECHANICAL MAINTENANCE CELL

(c) Creation of post of one Assistant Engineer, one Junior Engineer and one LDC-cum-Typist	Rs. 3.00 lakhs.
(b) Office Expenses	Rs. 2.00 lakhs
Total :	Rs. 5.00 lakhs

## II HOSPITALS

**Eighth Plan: Rs. 1714.50 lakhs**

**Annual Plan 1990-91 : Rs. 140 lakhs**

### CENTRAL REFERRAL HOSPITAL

**Eighth Plan : Rs. 1585.00 lakhs**

The Government of Sikkim had constituted a Committee headed by the Special Commissioner for Planning to look into the long term health requirements of growing population in Sikkim and in Gangtok in particular. The population of Sikkim is expected to go up to well over 5 lakhs by the end of the 8th Plan period and while the programme relating to spread of health services, establishment of PHCs, PHSCs etc. would be designed to take care of the growing requirements of this population, one important link in the whole progra-

me is the capacity to provide specialised services on a referral basis. At the moment this is to a certain extent provided by the STNM Hospital in Gangtok but a very large number of cases need to be referred to Siliguri, Calcutta and Delhi. This causes very considerable inconvenience to the patients and relatives who have to transfer the patient in delicate conditions all the way to these places. The present hospital was originally designed for 100 patients but is extremely over crowded catering to well over 300 patients. The buildings was not designed to take care of requirements of modern hospital and the standard of services has therefore been very poor. It is also located right in the heart of the town and around the hospital a large number of buildings have come up particularly of a commercial character. The traffic around the hospital is also extremely large causing a great deal of noise and inconvenience to the patients. The Committee referred to above came to the conclusion that continuance of the hospital in its present location and form would not be desirable and a totally new modern referral hospital be built to cater to the present and future requirements of Sikkim. No doubt this will take a few years to materialise and in the meanwhile marginal improvements to the existing facilities can be brought about and equipments and personnel augmented. However a site for the new hospital has been selected in the periphery of the Gangtok town and M/S. Hospital Consultancy Services were asked to prepare preliminary proposals for a 500 bedded hospital. This initial estimate amounted to Rs. 24 crores which no doubt would give a highly sophisticated and fully equipped hospital. It is however proposed that the project be implemented in two phases and to start with we can have 250 beds with all the facilities and during the 9th Plan period the facilities expanded to 500 beds. To implement both the short and long terms requirements as indicated above the following requirements are proposed :

(a) Creation of posts for the Central Referral Hospital—	Rs. 73.00 Lakhs
	( details at Annexure B )
(b) Purchase of Ambulances	—Rs. 12 lakhs
(c) Capital cost for 500 bedded hospital	—Rs. 1500 lakhs
	Rs. 1585.00

**DISTRICT HOSPITAL****Eighth Plan : Rs. 129.50 lakhs**

The 100 bedded district hospital at Namchi is expected to be completed by the end of the 7th Plan. During the 8th Plan upgradation of the three district hospitals at Gyalshing, Singtam and Mangan will be taken up. While the bed strength of Gyalshing and Singtam hospitals will be increased from the present 50 beds to 100 beds each, Mangan District Hospital will be raised to 75 beds only.

The Namchi hospital already offers specialists services. It is proposed that the other three district hospitals should also have full fledged specialities like, medicine, surgery, gynaecology and anaesthesia. The total cost for creating all the posts is estimated to be Rs. 71 lakhs. However since all the posts

cannot be filled up at the same time, a provision of Rs. 40 lakhs has been reflected for creation of new posts (Annexure 'C'). Further, Rs. 12 lakhs has been projected for the purchase of one ambulance each for the four districts.

The construction of Mangan hospital will be taken up under the Community Health Schemes. Rs. 77.50 lakhs has been reflected towards capital costs during the 8th Plan (Annexure C-1) primarily for construction of doctors quarter and the expansion of the Gyalshing hospital.

**SUMMARY****REVENUE**

Post Creation	—Rs. 40.00 lakhs
Ambulance	—Rs. 12.00 lakhs
Capital	—Rs. 77.50 lakhs
	<u>Rs. 129.50 lakhs</u>

**STATEMENT OF MAN-POWER REQUIREMENT EXPENDITURE FOR STNM HOSPITAL****ANNEXURE-B.**

Sl. No.	Name of Category posts	Existing	Total number proposed during 8th Plan	Total expenditure projected during 8th Plan per year
1	2	3	4	5
1.	Administrative Office posts	54	19	Rs. 5,40,342/-
2.	Specialists Posts	24	13	} Rs. 17,86,264/80
3.	G.D.M.Os.	13	12	
4.	Staff Nurses	22	53	} Rs. 21,18,120/-
5.	A.N.Ms.	47	27	
6.	Para Medical Posts	36	70	Rs. 18,97,200/-
7.	Other Staff	108	55	Rs. 9,70,313/40
		304	248	Rs. 73,12,240/20

**ANNEXURE 'C'****POST CREATION FOR DISTRICT HOSPITALS:**

1. Specialists	- 12 nos.	Rs. 4,203/50 x 12 x 5 x 12	= Rs. 30,26,520/-
2. G. D. M. Os.	- 7 nos.	Rs. 3,130/40 x 7 x 12 x 5	= Rs. 13,14,766/-
3. Staff Nurse	- 12 nos.	Rs. 2,014/20 x 12 x 5 x 12	= Rs. 14,50,224/-
4. Lab. Tech.	- 3 nos.	Rs. 1,904/-3 x 12 x 5	= Rs. 3,42,720/-
5. Blood Bank technician	- 1 no.	Rs. 1,904/-1 x 12 x 5	= Rs. 1,54,240/-



6. O.T.Asstt.	-	3 nos.	Rs. 1,462/- x 3 x 12 x 5	=	Rs. 2,63,160/-
7. Dental Asstt.	-	1 nos.	Rs. 1,237/50 x 1 x 60	=	Rs. 74,250/-
8. Ward Attendant	-	8 nos.	Rs. 1,153/- x 8 x 60	=	Rs. 5,53,440/-
9. Generator Operator	-	4 nos.	Rs. 1,237/50 x 4 x 60	=	Rs. 2,97,000/-
o. Jr. Acctt.	-	4 nos.	Rs. 1,533/- x 60 x 4 x 60	=	Rs. 3,68,064/-
Regt. Clerk	-	4 nos.	Rs. 1,384/- x 4 x 60	=	Rs. 3,32,160/-
					<u>Rs. 71,36,544/-</u>

## ANNEXURE 'C' - 1

### CONSTRUCTION TO BE TAKEN IN THE 8TH PLAN

1. South District	5 Doctors quarters 4 Class IV quarter	Rs. 12.00 lakhs
2. East District	3 Doctors quarter	
3. West District	50 bed extension of hospital and 4 no. Class III quarter	Rs. 65.50 lakhs
		<u>Rs. 77.50 lakhs</u>

### MINIMUM NEEDS PROGRAMME

During the last three plan periods an extensive network of PHSCs, PHCs, District Hospitals and Central Referral Hospital has been established. The 8th Plan Strategy would be to consolidate the gains made during the previous plan periods and emphasise the qualitative aspects of health care delivery.

### NEW PHC AND PHSCs

#### III. P.H.C.

**Eighth Plan : Rs. 207.50 lakhs**

**Annual Plan 1990-91 : Rs. 82 lakhs**

At the end of the 7th Plan period, 20 PHCs have been set up thereby fulfilling the 7th Plan target. However, the population will be touching the 5 lakhs mark by 1995. This would require 3 more additional PHCs during the 8th Plan, keeping in mind full health and medical coverage has still not reached some of the remote tribal inaccessible areas. It is proposed to establish one PHC each in the

West, South and East districts. In view of the importance given to the MNP further augmentation of the PHCs has been envisaged by providing the following :

1. Additional 2 ANMs per PHC (as the existing 3 ANMs are insufficient).
2. Provision of 5 ambulances.
3. Provision of 1 KVA generator to each PHC to maintain cold chain to avoid problems created by frequent disruption of electricity.
4. Provision of 4 nos, MA X-ray plant for the 4 sub-divisional PHCs.
5. Provision of 12 Sintex tanks of 500 ltrs. capacity to the PHCs facing acute shortage of water.

#### IV. P.H.S.C.

**Eighth Plan Rs. 370.00 lakhs**

**Annual Plan 1990-91 : Rs. 32 lakhs**

132 PHSCs have been established fulfilling the 7th Plan target. However, out of the 35 I.T.D.P. blocks only 14 have been covered by health facilities. It is therefore proposed to establish 10 additional PHSCs during the 8th Plan (4 in the South, 2 in the East and 3 in the West and 1 in the North) to ensure coverage of ITDP areas as well as remote and inaccessible areas. Rs. 50.00 lakhs has been reflected to meet costs of hiring of houses, salaries etc.

#### CONSTRUCTION OF PHCs

Out of 20 PHCs established till the 7th Five Year Plan period, 18 are housed in Government Buildings, and 7 of them have residen-

tial quarters for Doctors and Staff attached to them. Therefore in the 8th Five Year Plan, we propose to take up construction of 2 PHCs and 10 quarters. This would mean that by the end of 8th Five Year Plan 20 PHCs will be housed in Government buildings and all of them will have residential quarter attached to them. Rs. 100.00 lakhs has been reflected to meet this capital costs.

#### SUMMARY (PHC):

Post creation for 40 ANMs (@ 2/PHC)-	- Rs. 15.00 lakhs
Ambulances 20 nos. 1 KVA Generator	- Rs. 10.00 lakhs
12 nos. 500 ltrs. Synitex tanks	- Rs. 2.00 lakhs
4 nos. 50 MA X'ray plant for 4 sub-divisional PHCs	- Rs. 0.60 lakhs
Capital cost towards construction of 10 quarters and 2 PHC	- Rs. 5.00 lakh.
Post creation for 3 additional PHC	- Rs. 100.00 lakh.
	- Rs. 15.00 lakhs

Rs. 147.60 lakhs

#### CONSTRUCTION OF PHSCs

By the end of 7th Plan period, 132 PHSC would have been established fulfilling the norm of 1 PHSC for every 3,000 population. 63 nos. of PHSCs would be housed in Government buildings by the end of 7th Five Year Plan. All except 4 will have staff quarters also. During the 8th Plan, we propose to take up construction of 50 additional PHSCs so that they are housed in Government buildings by the end of 8th Five Year Plan. Construction of remaining PHSCs plus 10 to be established in 8th Plan period will spillover to the 9th Plan. Rs. 320.00 lakhs has been reflected towards capital costs.

#### COMMUNITY HEALTH CENTRE

The community Health Centres have been taken up during the 7th Plan period and the construction is scheduled to be completed during the 7th Plan. Two more community Centres will be taken up in North and East Districts during the 8th Plan period for which Rs. 60.00 lakhs has been projected. Like the Namchi Hospital, the plan outlay for the PHC will be utilized for construction of the 75 bedded Mangan Hospital.

#### CONSTRUCTION STATUS OF PHC

District	Total no. of PHC	Complete with quarter	Non-Residential only	Remarks
East	6	2	3	1 PHC (NR+R) and 3 quarters to be taken up
West	6	2+1 (under construction)	2	1 PHC (NR+R) and 2 quarters to be taken up
North	3	1	2	2 quarters to be taken up
South	5	2	3	3 quarters to be taken up
<b>TOTAL:</b>	<b>20</b>	<b>7+1</b>	<b>10</b>	<b>2 PHC complete and 10 quarters to be taken up in 8th Plan.</b>

## CONSTRUCTION STATUS OF P.H.Cs

District	Total no. functioning by 31. 3. 1990.	Completely constructed	Under construction	Hired	Proposed for 8th Plan
East	42	8	7	27	18
West	37	14	5	18	12
North	18	8	2	8	8
South	35	16	3	16	12
<b>TOTAL :</b>	<b>132</b>	<b>46</b>	<b>17</b>	<b>69</b>	<b>50</b>

## V. TRAINING AND RESEARCH

**Eighth Plan: Rs. 29 lakhs**  
**Annual Plan 1990-91 : Rs. 3 lakhs**

In accordance with the strategy to be adopted in the 8th Plan to bring about qualitative improvement of services, emphasis will be laid on meeting the inservice training of the medical and para-medical staff. Rs.10. lakhs has been projected towards meeting this expenditure, under the scheme of continuing Education both within the State and outside the state.

Reference libraries are proposed to be set up in all the district hospitals, PHCs and the Central Referral Hospitals. At the rate of Rs. 5.00 lakhs for C.R.H. and Rs.2.00 lakhs each for the 4 districts hospitals, Rs.13 lakhs has been reflected.

Hospital based research, health services research will be taken up during the 8th Plan and Rs.6.00 lakhs has been set aside.

## Summary :

Training:	Rs.10.00 lakhs
Library:	Rs.13.00 lakhs
Research:	Rs. 6.00 lakhs
<b>Total</b>	<b>: Rs.29.00 lakhs</b>

## VI. INDIGENOUS SYSTEM OF MEDICINE AND HOMOEOPATHY

**Eighth Plan : Rs. 10 lakhs**  
**Annual Plan 1990-91 : Rs. 2 lakhs**

In pursuance of the policy to promote indigenous system of medicine, the existing coverage under the Amji (Traditional Tibetan) system will be consolidated. The Amji System has proved to be very popular with the people

and this facility will be extended to all the District Hospitals. Effort will be made to diversify the activities and start systems like homeopathy and naturopathy. A provision of Rs.10 lakhs has been made in the 8th Plan.

## VII. HEALTH EDUCATION

**Eighth Plan : Rs. 25 lakhs**  
**Annual Plan 1990-91 : Rs. 5 lakhs**

Health Education is not only an integral component of General Health Programme but will be playing a vital role in the delivery of Comprehensive Primary Health Care Services in the 8th Plan period. Hence the VIII Plan objective is to make it a more organised, mobile and effective instrument with greater emphasis on covering rural areas.

## A. ESTABLISHMENT

1. Salaries : (Rs. 4.30 lakhs).

This pertains to the phasewise creation of posts in the Head Office and Districts.

Head Office (a) 1 post of Senior Accountant (as there is no one to look after the account work).  
 (b) 1 post of Driver as this was not sanctioned with the vehicle, purchased last year.  
 (c) 1 post of Programme Assistant under School Health to collect, compile and coordinate between PHC's and Schools.

District : (a) 1 post of Projectionist for the two districts, South & West (we have only one projectionist at present).  
 (b) 1 post of I.D.D. for Districts.

2. Travel Expenses (Rs. 0.5 lakh) :  
 It is related to the proposed posts (1990-95).  
 3. Office Expenses (Rs. 2.00 lakhs) :

It pertains to the establishment costs of District Officer, Store room and accomodation for A.N.M. (Under School Health Clinic) at Head Office and expenses under Stationaries and imprest etc.

### B. MEDIA (Rs. 3.65 Lakhs)

1. Machinery & Equipments (Rs.2.15 lakhs)
2. Materials & Supply (Rs. 1.50 lakhs)

To make media more prolific and versatile with the changing times, it is proposed to purchase the following equipment :-

- (a) 1 Video Camera
- (b) 1 Projector & Generator for Districts
- (c) Video Cassettes
- (d) Films
- (e) Art and Photography materials.

### C. HEALTH CAMPAIGN (Rs. 4.50 Lakhs)

1. Training and Camps Rs. 1.50 lakhs
2. Printing and Advertisement Rs. 3.00 lakhs

It covers expenses for POL and Contingency for PHC based Health Camp, Exhibition and Printing of Education Materials for the Community.

### D. MOTOR VEHICLES (Rs.3.70 Lakhs)

To have better mobility and access to far flung areas and better coverage, it is proposed to provide one vehicle each to North-East Districts and West-South Districts (In total two vehicles). The provision include cost of POL etc.

### E. SCHOOL HEALTH (Rs. 6.00 Lakhs)

The proposed amount includes the expenses for :

1. Teachers training programmes under School Health.
2. Organisation of School Health Education Camps.
3. Printing of cards, Aids and Health Manuals.
4. Purchase of School Medicine and Equipments for School Health Clinic at STNM Hospital.

## HEALTH EDUCATION BUREAU:

### VIII PLAN PERSPECTIVE ( 1990-95 ):

Financial Target ( In thousand of Rupees ):

I. PUB. H. EDN.	90-91	91-92	92-93	93-94	94-95	Total
1. Salaries	50	80	90	100	110	430
2. Travel Expenses	5	8	10	12	15	50
3. Office Expenses	30	35	40	45	50	200
4. Machine/equipment	50	30	40	45	50	215
5. Materials/supply	20	25	30	35	40	150
6. HEALTH CAMPAIGN						
1. Training Camp	20	25	30	35	40	150
2. Printing Adv.	50	55	60	65	70	300
3. M. Vehicle	140	20	20	160	370	
<b>TOTAL :</b>	<b>365</b>	<b>278</b>	<b>320</b>	<b>497</b>	<b>405</b>	<b>1865</b>
I. SCHOOL HEALTH						
1. Training/Camps	30	35	40	45	60	200
2. Medicine/Equipment	30	35	35	40	40	180
3. Edn., Aids Cards/Reg.	40	40	45	45	50	220
<b>TOTAL :</b>	<b>100</b>	<b>110</b>	<b>120</b>	<b>130</b>	<b>140</b>	<b>600</b>
<b>GRAND TOTAL :</b>	<b>465</b>	<b>388</b>	<b>440</b>	<b>627</b>	<b>545</b>	<b>2465</b>

### VIII. PREVENTION OF FOOD ADULTERATION

**Eighth Plan Rs. 20.00 lakhs**  
**Annual Plan 1990-91 : Rs. 4 lakhs**

The P.F.A. Act has been enforced in Sikkim w.e.f 1.4.1979. The activities generally involve detection of adulteration of food items by means of chemical analysis. We have no Food Laboratory in the State. So we were compelled to send the samples to Laboratories in the neighbouring States. Government of Assam has agreed to do the analysis for us in their Lab. at Guwahati. Now the State P.F.A. Rules, 1988 have been framed and are awaiting approval of the Central Committee for Food Standard, New Delhi. As soon as the Rules are legislated, the P.F.A. Cell shall also be responsible for issuing licences to all grocery dealers. Our experience of send-

#### B. CREATION OF POSTS

Sl. No.	Name of Post	No. of Post	Salaries & Allowances etc.	Remarks
1.	LDC Cum Typist	1	18,000	Post to be created to issuing licences and other paper works.
2.	Packer-cum-Peon	1	14,000	Post to be created for assisting Sr. Food Inspector for collection of samples and packing.
			32,000	
3.	Chemist	1	25,000	For Laboratory
4.	Lab. Tech.	1	20,000	Post to be created for assistance to chemist for Laboratory functions.
			45,000	
			Grand Total: 77,000	

Therefore total expenditure for period 1990-95 will be of the order of Rs. 3,85,000/- (Rupees three lakhs eighty five thousand) only.

#### C. OTHER EXPENSES (FOR THE PERIOD 1990-95) :

1. Sampling equipment and other expenses in

ing samples to laboratories in other States has not been very good, as results are obtained after a long period extending upto 6 months in many cases. By that time, the whole significance is lost. Therefore, it is proposed to establish a laboratory of our own. The one time expenditure will also save current expenditure on honorarium sample fees and other incidentals being paid to the other States.

Expenditure will be as follows :-

#### A. LABORATORY

1. Construction of minifood lab. including cost of land —Rs. 3.00 lakhs
  2. Furniture —Rs. 0.10 lakhs
  3. Class Apparatus —Rs. 1.00 lakhs
  4. Lab. Instrument —Rs. 6.00 lakhs
  5. Reagents and chemicals —Rs. 1.00 lakhs
- Rs. 11.10 lakhs

four districts. —Rs. 1.15 lakhs

2. Honorarium to Public Analyst and other expenditure for chemicals, Glass Apparatus at Guwahati till the new Lab. comes up. —Rs. 0.30 lakhs

3. Salaries for 2 Sr. Food Inspectors.	—Rs. 4.00 lakhs
4. T.A. for covering 4 districts	—Rs. 0.07 lakhs
Total	—Rs. 5.52 lakhs

**SUMMARY :**

1. Establishment of Lab.	—Rs. 11.10 lakhs
2. Creation of Posts	—Rs. 3.85 lakhs
3. Other Expenses	—Rs. 5.42 lakhs
Grand Total	—Rs. 20.37 lakhs

**IX. PREVENTION OF COMMUNICABLE DISEASES****Eighth Plan Rs. 150 lakhs****Annual Plan 1990-91 : Rs. 30 lakhs****A. NATIONAL MALARIA ERADICATION PROGRAMME**

The programme as already implemented during the 7th Five Year Plan will continue to be implemented in the 8th Five Year Plan period. During the 7th Plan, the expenditure under the programme was shared between the Centre and State on 50 : 50 basis.

The total annual expenditure in the base year 1989-90 is of the order of Rs. 51 lakhs (Statement attached). Implementing this programme at the same level of efficiency during the 8th Plan period will entail expenditure of Rs. 50 lakhs per year thereby making a total of Rs. 250 lakhs for the period 1990-95 or Rs. 125 lakhs as State share. Rs. 125.00 lakhs has been reflected as State share. It is proposed to retrain all the workers under this programmes to be multipurpose workers so that they are better utilised.

**B. NATIONAL TUBERCULOSIS CONTROL PROGRAMME**

The incidence of this disease being high in the State, all out effort will be made to control it in the 8th Five Year Plan. Not much headway could be made in the 7th Plan period because of shortage of trained manpower. The objective of the programme is early detection and proper treatment of the patients.

The infrastructure required for implementation of the programme is District Tuberculosis Centre situated at the district headquarters. These should be manned by the Medical Officer, Statistical Assistant, Lab. Technician and Treatment organisers. One such centre at Singtam is under operation. The other three mini D.T.Cs at Mangan, Gyalshing and Namchi could not get recognition in the 7th Plan because of non-availability of trained manpower. Most of the staff positions for mini D.T.Cs have not been filled up and posts of lab. Technicians, need to be created. Training of the personnel will be complete by the end of next year.

**FINANCIAL IMPLICATION**

In the 7th Plan, the programme was on 50 : 50 sharing basis between centre and State. Total allocation per year during 7th Plan was approx. 6.50 lakhs a year. By extending the programme to all the 4 districts, a total of about 5.00 lakhs as state share will be required per year during the 8th Five Year Plan. This would mean, an expenditure of Rs. 25.00 lakhs during the 8th Plan as State share.

**X. NEW SCHEMES****Eighth Plan : Rs. 51 lakhs****Annual Plan 1990-91 : Rs. 12 lakhs****NATIONAL MENTAL HEALTH PROGRAMME ( Rs. 7.00 lakhs )**

According to the available statistics, 5 percent of our population suffers from major psychiatric illness, 1 percent suffer from epilepsy and 2 percent from Mental retardation. Many more suffer from minor illnesses like Anxiety Neuroses etc. Nearly 5 to 10 percent of the Psychiatric hospital admission is because of alcoholism. In the coming years drug addiction can also become a problem. Therefore, preventive aspects of these problems need to be tackled by Health Education. Identification of the cases require frequent examination of the targetted, population groups by experts in this field. Treatment will also have to be given to the people already suffering from major psychiatric illness.

Following expenditure is proposed to be incurred to achieve above mentioned objectives:-

(1) Purchase of programme vehicle

for the purpose of mobility—Rs. 1.50 lakhs

(2) Creation of the post of Driver	—	Rs.1.20 lakhs
(3) P.O.L. etc.	—	Rs.1.50 lakhs
(4) T.A./D.A.	—	Rs. 0.30 lakhs
(5) Drugs	—	Rs.2.00 lakhs
(6) Health Education Materials	—	Rs.2.00 lakhs
Total	—	<u>Rs.7.00 lakhs</u>

#### CONTROL OF AIDS (Rs. 4.00 Lakhs)

The epidemic of Aids is a World Health Problem of extraordinary scale and extreme urgency. There is no cure for this disease. Therefore, we need to take steps before AIDS affects our State. We cannot wait till the positive cases are identified as by that time, we would have already missed the train.

Strategy for prevention of this disease lies in proper health education of the population and early detection of the already affected cases, their isolation and after care.

Following financial provisions are proposed during the 8th Plan for AIDs Control.

(1) Preparation of Health Education material on the subject	—	Rs.2.00 lakhs
(2) Expenditure on getting blood sample etc. tested from established Laboratory in the Country	—	Rs.2.00 lakhs
Total	—	<u>Rs.4.00 lakhs</u>

#### CANCER CONTROL (Rs.20.00 lakhs)

Taking into account of the size of the Central Referral Hospital at Gangtok and the incidence of the disease, Cobalt Therapy Unit was proposed to be established in the 7th Five Year Plan. The proposal was not however accepted because of non-availability of funds. Rs.20.00 lakhs has been reflected as follows, so that this programme can be taken up in the 8th Plan.

(1) Capital costs	—	Rs.5.00 lakhs
(2) Other Expenses (like equipment, post creation etc.)	—	Rs.15.00 lakhs
Total	—	<u>Rs.20.00 lakhs</u>

#### DENTAL HEALTH PROGRAMME (Rs. 5.00 lakhs).

Basic Dental Health Care is at present non-existent especially among the rural population.

Prevention of Dental Diseases like carries and gum disorders like Pyrrheha, Peridental diseases are so common that a real thrust on health education on proper oral dental hygiene is extremely urgent.

This would involve dental health education among the school children and the community. Appointment of Dental Health Programme Officer and Dental Assistant in the Districts has been envisaged.

A budget of Rs. 5.00 lakhs has been proposed

#### DIARRHOEAL DISEASE CONTROL PROGRAMME: (Rs. 15.00 lakhs)

Diarrhoeal diseases including dysentery ranks among the major causes of infant morbidity and mortality in the State.

As such, a budget provision of Rs. 15.00 lakhs (Rs 3.00 lakhs per year) has been made for the 8th Plan.

Health Education	@ Rs. 0.50 lakhs per year-Rs. 2.50 lakhs
Purchase of DRS	@ Rs. 2.50 lakhs per year-Rs. 12.50 lakhs
Total—	<u>Rs. 15.00 lakhs</u>

The programme is basically to promote environmental hygiene, use of potable water for drinking and provision of DRS.

8TH FIVE YEAR PLANEXTRACT

(Rs. in lakhs)

	<u>Revenue</u>	<u>Capital</u>	<u>Total</u>
1. Direction & Admn.	Rs. 220.50	Rs. ..	Rs. 220.60
2. Hospital	Rs. 187.00	Rs. 1577.50	Rs. 1714.50
3. <u>N.M.E.P.</u>			
PHC	Rs. 47.60	Rs. 100.00	Rs. 147.60
PHSC	Rs. 50.00	Rs. 320.00	Rs. 370.00
CHCs	Rs. —	Rs. 60.00	Rs. 60.00
	Rs. 97.50	Rs. 480.00	Rs. 577.60
4. Training & Research	Rs. 29.00	Rs. —	Rs. 29.00
5. Indigeneous System of medicine	Rs. 10.00	Rs. —	Rs. 10.00
6. Health Edn. & Publicity	Rs. 25.00	Rs. —	Rs. 25.00
7. Prevention of Food Adulteration	Rs. 17.00	Rs. 3.00	Rs. 20.00
8. Control of C.D.	Rs. 150.00	Rs. —	Rs. 150.00
<u>NEW SCHEMES</u>			
9. Mental Health	Rs. 7.00	Rs. —	Rs. 7.00
10. Control of AIDS	Rs. 4.00	Rs. —	Rs. 4.00
11. Cancer Control	Rs. 15.00	Rs. 5.00	Rs. 20.00
12. Dental Health Prog.	Rs. 5.00	Rs. —	Rs. 5.00
13. Diarrhoeal Diseases Control Programme	Rs. 15.00	Rs. —	Rs. 15.00
<u>Total</u>	Rs. 732.00	Rs. 2065.50	Rs. 2797.50



DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN 1990-91  
 HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE Statement GN - 2  
 DEPARTMENT - MEDICAL & PUBLIC HEALTH (Rs. in Lakhs)

Code No.	Name of the Scheme/Project	Seventh Plan Outlay (1985-90)	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which Capital content	Annual Plan 1990-91 Proposed Outlay	Of which capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
222221000	MEDICAL AND PUBLIC HEALTH							
01	Urban Health Services Allopathy							
001	Direction & Admr. including (Medical Store depots)	150.00	143.74	45.00	220.50	—	50.00	—
110	Hospital & Dispensaries	18.00	25.56	5.50	1714.50	1577.50	140.00	110.00
200	Other Health Scheme (Treatment Outside Sikkim)	5.00	11.27	1.50	—	—	—	—
02	Urban Health Services (Other System)							
220	Other System (Amji)	10.00	4.19	2.00	10.00	—	2.00	—
03	Rural Health Service, Allopathy							
101	Health Sub centre,	85.00	7.39	1.50	370.00	320.00	32.00	30.00
103	Primary Health Centres including C.H.C	115.00	13.64	3.50	207.50	160.00	82.00	80.00
05	Medical Education Training & Research							
105	Allopathy	8.00	5.79	1.00	29.00	—	3.00	—
06	Public Health							
105	Prevention of Communicable diseases	—	198.13	63.22	150.00	—	30.00	—
102	Prevention of Food Adulteration	8.00	2.46	2.50	20.00	3.00	4.00	—
112	Public Health Education	20.00	7.49	3.00	25.00	—	5.00	—
	New Schemes	—	—	—	51.00	5.00	12.00	—
	Total	581.00	419.66	166.25	2797.50	2065.50	360.00	193.00

## Water Supply And Sanitation

1. Provision of safe drinking water and basic sanitation facilities to the population both in the urban as well as the rural areas constitute the underlying objective in respect of the Water Supply, Sewerage and Sanitation Sector. These basic objectives have also been given increased stress under the "International Drinking Water Supply and Sanitation Decade Programme" which envisages complete coverage of the entire population by the year ending 1990. The emphasis adopted during the VIth and the VIIth Plans were guided by the direction and approach enshrined in this action Programme for the decade beginning from the commencement of the VIth Plan.

2. The urban Water Supply and Sanitation sector would cover, apart from Gangtok, the seven major notified towns and fifty rural marketing centres. So far Gangtok town has been by and large adequately covered with the Gangtok Water Supply System. However, with the spurt in the population and increasing influx into the State capital for a variety of reasons, the water supply system needs to be progressively augmented and proper distribution network also established to prevent losses and ensure rational distribution of water. Apart from Water Supply, the Gangtok Sewerage Treatment facility has been built up and sewer lines also laid out covering, for the time being, the more congested areas within the Capital. Extension of the sewerage mains and sub-mains will have to be considered as the next phase of the programme so that the population can be completely brought under the Gangtok Urban Sewerage System and the Treatment Plant can operate upto its optimum capacity.

3. The seven major towns have all been covered by water supply systems although further attention will have to be given to augmentation of the supply to cater to population growth, organisation of proper distribution network and more importantly, the need for providing proper filtration mechanism. While modern sewerage treatment facilities have not been provided for in these towns, basic amenities for sanitation have been provided in the form of public latrines and drainage systems in most of the towns.

4. The coverage of the rural marketing centres has been partial and out of 55 such centres, 31 centres have been provided water supply systems so far. The above position does not imply that the remaining centres are completely devoid of such basic amenities. Apart from schemes implemented by the SPWD and the Urban Development department, the Rural Development Department has also been covering the marketing centres as part of their programmes for providing rural water supply. It is relevant to mention that the marketing centre are generally located within the geographical area of a village development unit and therefore while planning for any rural supply schemes, the requirements of such marketing centres are fully taken into account.

5. The achievement in respect of rural water supply sector has been very considerable during the VIIth Plan. Water supply facilities have been provided to practically all the identified village. By the end of the VIIth Plan out of 440 villages in the State, 324 villages will be fully covered with rural water supply schemes and the remaining 116 villages partially covered. Improvements in terms of proper filtration systems will be given due attention in consolidating the achievements made so far. The schemes under the purview of the Technology Mission have also been taken up consistent with the thrust provided in this regard at the National level. In addition to the above programme, considerable progress has been recorded in the rural sanitation efforts and upto the end of VIIth Plan 7480 rural sanitary latrines were constructed and in addition to this construction of garbage/soakage pits and bathing cubicles were also implemented with good response from the rural people. Scientific analysis of water conditions, augmentation of sewerage treatment plant at Gangtok, coverage of entire Gangtok population by sewer lines, provision of safe potable water to all problematic villages and improvement and upgradation of sanitation standards in other towns and marketing centres. The establishment of a scientific research and analysis wing to ensure regular monitoring of water properties for general interest of public health engineering will receive due priority in the plan.

6. For the VIIIth plan a total outlay of Rs.2800 lakhs has been proposed comprising of Rs.1435 lakhs for Urban Water Supply and Sanitation sector and Rs. 1365 lakhs for the Rural sector. The corresponding allocation for urban and rural sectors during 1990-91 annual plan are Rs.534 lakhs and Rs. 390 lakhs respectively. The scheme wise details is outlined in the following paragraphs.

#### A. URBAN WATER SUPPLY AND SANITATION

##### A(i) DIRECTION AND ADMINISTRATION

**Eighth Plan : Rs. 30 lakhs**  
**Annual Plan 1990-91 : Rs. 5 lakhs**

A total outlay of Rs.30 lakhs has been proposed under this head out of which Rs.25 lakhs is proposed to meet the establishment overheads for certain new post required to be created during the plan period and Rs.5 lakhs each for inservice training of public health engineering personnel and for survey and investigation activities. Provision of Rs. 10 lakhs has been included exclusively for establishment of a Scientific Water Analysis and testing laboratory in the department. The provision made for the annual plan 1990-91 is Rs.4 lakhs.

##### A(ii) GANGTOK WATER SUPPLY

**Eighth Plan 1990-91 : Rs. 700 lakhs**  
**Annual Plan 1990-91 : Rs. 350 lakhs**

The main component under this scheme is the augmentation of the Gangtok Water Supply Source by laying four additional supply lines from the main sources at Ratheychu which is located 16 km away from the main reservoir. With these additional trunk lines it would be possible to augment the water supply for Gangtok by 8 million gallons. For this purpose an estimate of Rs. 300 lakhs is projected. In addition to the above work it is also necessary to extend the approach road towards the main water supply source so that the work on the laying of additional trunk lines can be facilitated as also prompt repairs and restoration of the trunk lines can be attended to whenever damages occur. For this purpose Rs. 10 lakhs has been estimated. The scheme for expanding the distribution system within Gangtok town which

has been expanding at a tremendous rate will have to be continued so that Water Supply Services are made available to each and every locality. In particular the uncovered area at Tadong below Gangtok town will be taken care of during the VIIIth plan. For the scheme of remodelling and extension of the water supply distribution system an estimated of Rs.40 lakh has been estimated. The works mentioned above are in the nature of continuing schemes and the estimates indicated against each of the items above have been determined to meet the spillover expenditure for completion of these schemes.

In addition to the spill over schemes, certain specific new schemes in respect of Gangtok Water Supply has been found to be necessary. These include provision of filtration unit including storage of 30 MLD capacity and extension of the distribution network to cover lower Tathangchen, Sichey and Bhaluwakhani areas. Furthermore, schemes for improvement of the existing distribution systems particularly at Development area, Arithang and Chandmari are proposed to be implemented in order to control pilferage of water supply system. The overall outlay for the above three new schemes is Rs.350 lakhs for the VIIIth Plan period. The annual plan outlay for 1990-91 in respect of the spill over work mentioned above is Rs.300 lakhs and for the new works the outlay proposed is Rs.50 lakhs.

##### A(iii) WATER SUPPLY IN OTHER BAZARS

**Eighth Plan : Rs. 410 lakhs**  
**Annual Plan 1990-91 : Rs. 40 lakhs**

The completion of the ongoing scheme for augmentation of the Rangpo water supply system will be expedited. Out of the spillover expenditure of Rs.50 lakhs proposed in the Plan, Rs.30 lakhs has been envisaged in the initial year of the plan.

The new schemes to be taken up include provisions of water filtration and treatment devices in the existing water supply and for this purpose Rs.100 lakhs has been proposed. Further, the growth of population and expansion of the towns and rural marketing centres will entail augmentation of the water supply sources in these growth centres and accordingly a phased programme for augmentation and system improvement will be executed and for this purpose

Rs. 260 lakhs has been proposed. For implementation of the augmentation schemes, the level of population of the towns will determine the order of priorities and the execution of the scheme will be taken up in stages. For the Year 1990-91 an outlay of Rs. 10 lakhs has been proposed for the augmentation programme.

#### A(iv) NAMCHI WATER SUPPLY

**Eighth Plan: Rs. 55 lakhs**

**Annual Plan 1990-91 : Rs. 55 lakhs**

The Namchi Water Supply scheme had been sanctioned during the VIIth plan at a total estimated cost of Rs. 500 lakhs approximately. The progressive expenditure on the project by the end of the VIIth plan is expected to be of the order of Rs. 445 lakhs. In order to meet the spill over expenditure for completion of this project during the VIIIth plan, Rs. 55 lakhs has been provided. The entire outlay will be consumed during the first year of the plan.

#### A(v) GANGTOK SEWERAGE

**Eighth Plan: Rs. 175 lakhs**

**Annual Plan 1990-91 : Rs. 25 lakhs**

The Gangtok Sewerage treatment plant has been commissioned and the mains and sub-mains sewer lines covering most part of the capital have also been connected to the plant. During the VIIIth plan extension of the sewer lines to connect the uncovered areas within the capital will be taken up. Keeping in view the sudden spurt of population in the capital and extension of the township, the capacity of the treatment plant will have to be augmented and necessary sewer lines to connect these areas also taken care of. During the plan period it is proposed to augment the capacity of the treatment plant by IMGD and for this purpose Rs. 70 lakhs has been proposed in the plan. This scheme will be taken up during the middle of the plan period. The ongoing scheme of extension of the main sewer lines and provision of sub-main under phase III of the Gangtok Sewerage scheme will have to be continued as spill over and accordingly Rs. 50 lakhs has been proposed for completion of this phase. During the year 1990-91 provision of Rs. 20 lakhs has been proposed on these ongoing schemes. Apart from the above a total provision of Rs. 50 lakhs has been proposed for the extension of the trunk lines and submain

lines to cover unserved areas as also newly developed colonies within Gangtok. During 1990-91 Rs. 5 lakhs has been proposed for such extension schemes.

Keeping in mind the above allocations proposed for ongoing as well as new augmentation and extension schemes a total outlay of Rs. 175 lakhs would be required for the VIIIth plan with Rs. 25 lakhs for the year 1990-91.

#### A (vi) SEWERAGE AND SANITATION IN BAZARS

**Eighth Plan : Rs. 65 lakhs**

**Annual Plan 1990-91 : Rs. 10 lakhs**

As part of the overall efforts for development of towns other than Gangtok, the Local Self Government Department has been implementing various schemes involving construction of concerned drainage system within important towns and have also been constructing public latrines. During the VIIIth plan such sanitation programmes will continue to be implemented and the more important towns namely Rangpo, Singtam, Rhenock and Rorathang will be taken up for comprehensive development of sanitation facilities. For this purpose Rs. 65 lakhs has been proposed for the VIIIth plan with Rs. 10 lakhs in the year 1990-91.

#### B. RURAL WATER SUPPLY AND SANITATION

##### B (I) RURAL WATER SUPPLY SCHEMES

**Eighth Plan : Rs. 1200 lakhs**

**Annual Plan 1990-91 : Rs. 350 lakhs**

Out of the total of 440 villages in the State, 324 villages would be covered fully by water supply schemes, and the remaining 116 partially covered. Considering the hilly terrain and the structure of the villages in the State where the habitation within defined geographical area of the villages are widely scattered the provision of water supply facilities to cover each and every hamlet proves to be difficult and a costly proposition. Keeping these facts in mind, efforts will be made to provide water supply points within reasonable distances from the habitation within villages. Apart from provision of water services, the aspects relating to provision of proper water filtration and treatment systems will be given due attention

during the VIIIth Plan and wherever schemes have not been provided with such facilities, these deficiencies will be made good. Augmentation and improvement of the existing schemes will also be taken care of to cater for growth in population. The target envisaged during the VIIIth Plan is to cover all the villages fully and in addition take up supportive schemes for consolidating the existing assets in terms of provision of hydrants, filtration systems and extension of the distribution network. A total outlay of Rs. 1200 lakhs has been proposed accordingly with Rs. 350 lakhs for the Annual Plan 1990-91. Matching contribution under ARWSP will also be forthcoming under the Centrally Sponsored Scheme.

#### B (II) RURAL SANITATION

**Eighth Plan: Rs. 135 lakhs**

**Annual Plan 1990-91: Rs. 35 lakhs**

The construction of low cost household latrines in the rural areas as well as sanitation facilities for community and institutions has gained wide popularity. Construction of soakage/garbage pits and bathing cubicles have also been implemented since 1988-89 with Central assistance and these programmes have contributed substantially towards development of awareness on basic hygiene and sanitation among the rural poor. In order to carry forward this programme which has proved to be of immense success it is necessary to provide for adequate funds in the plan and accordingly Rs. 135 lakhs has been proposed with Rs. 35 lakhs for the year 1990-91. The physical target will be to construct 15000 household latrines, 150 community/institutional latrines, 100 bathing cubicles and 15000 garbage/soakage pits, during the VIIIth plan. The corresponding targets for the year 1990-91 are 2500, 20, 16 and 2500.

#### B(III) DIRECTION AND ADMINISTRATION

**Eighth Plan : Rs. 30 lakhs**

**Annual Plan 1990-91: Rs. 5 lakhs**

In order to meet the establishment overheads for strengthening the planning, implementation, monitoring and evaluation aspects a total outlay of Rs. 30 lakhs has been proposed for the plan with Rs. 5 lakhs in the initial year. Research and analysis for testing water properties so the purity of drinking water are ensured, will receive due importance in the plan. The scheme of survey and investigation of water sources will also have to be supported.

#### B(IV) BUILDINGS PROGRAMME

##### (a) RESIDENTIAL BUILDINGS

**Eighth Plan: Rs. 60 lakhs**

**Annual Plan 1990-91: Rs. 10 lakhs**

The department has 4 District Offices in the 4 districts with the DDOs as Head of office. Besides it has 2 technical Division and 8 sub-Divisions headed by a Divisional Engineer and Assistant Engineer respectively. The Division with its head office at Gangtok looks after East and North Districts and other Division takes care of West and South Districts. The eight Sub-Divisions are located at Gangtok, Tadong, Pakyong, Gyalshing, Soreng, Mangan, Namchi and Jorethang. One more Sub-Division at Rabongla is proposed to be established during VIIIth plan to cater to the needs of the area and as well as to cope up with the increased work load.

During the VIIIth plan, it is proposed to construct only the most essentially required quarters in the District Head quarters, sub-Divisions and the Sectors. The type and total number of quarters proposed to be constructed are as follows:-

1. Class I	1
2. Class II	3
3. Class III	20
4. Class IV	10

Since Jorethang will have the Division office for West and South district it is proposed to construct 1 Class I, Class II, 8 Class III and 4 Class IV quarters. Similarly, at Soreng where the Sub-Divisional Office complex is nearing completion the department proposes to construct its quarters for which land has been already made available by Land Revenue and Public Works Departments. The Department has no residential quarters at Soreng though the office of the Assistant Engineer is in existence and has been functioning for more than 5 years. The proposal, therefore, is to construct 1 Class II quarter for the Assistant Engineer, 8 Class III and 4 Class IV quarters. Similarly, provision has been made for construction of such quarters at Rabongla. The Junior Engineers who are posted in the rural areas are not provided with quarters. In few areas they are staying in the Panchayat Ghar where they have small office. There are places where no suitable accommodation are available on rent.

In such places (Rhenock, Rongli and Yuksam) it is proposed to construct Class-III quarters for the Junior Engineers and Class - IV quarters for the work supervisors/plumbers.

The total number of quarters and tentative estimated cost are as follows :-

1. Class I	1 No.	Rs. 2. 00 lakhs
2. Class II	3 No.	Rs. 5. 00 lakhs
3. Class III	20 No.	Rs. 33. 00 lakhs
4. Class IV	16 No.	Rs. 10. 00 lakhs
		Rs. 50.00 lakhs

#### (b) NON RESIDENTIAL BUILDINGS

In view of the increased work loads and im-  
plementation of newer programmes by the depart-  
ment, its expansion with required infrastructures  
has become necessary. To cope with the up works  
and solve the problem, it is proposed to cons-  
truct non-residential buildings mainly office  
accommodation for Junior Engineers posted in  
rural areas. A provision of Rs.10 lakhs will be  
required for this.

## DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN 1990-91

## HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE

Statement GN-2

## DEPARTMENT : WATER SUPPLY &amp; SANITATION

(Rs. in Lakhs)

Code No.	Name of the Scheme/ Project	Seventh Plan Outlay (1985-90)	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which Capital content	Annual Plan 1990-91 Proposed Outlay	Of which capital content
1	2	3	4	5	6	7	8	9
223221500	<b>WATER SUPPLY &amp; SANITATION</b>							
01	<b>Water Supply</b>							
001	Direction & Admn.	25.00	28.27	10.00	30.00	—	5.00	—
101	Urban Water Supply Programme	750.00	677.67	183.00	1165.00	—	445.00	405.00
	i) Gangtok	150.00	199.40	55.00	700.00	700.00	350.00	350.00
	ii) Namchi	500.00	339.00	90.00	55.00	55.00	55.00	55.00
	iii) Other Areas	100.00	139.27	30.00	410.00	—	40.00	—
102	Rural Water Supply Programme MNP	850.00	1060.57	360.00	1200.00	1200.00	350.00	350.00
02	<b>SEWARAGE &amp; SANITATION</b>							
001	Direction & Admn.	—	—	—	30.00	—	5.00	—
107	Sewarage Services	175.00	123.03	35.00	375.00	—	70.00	60.00
	i) Gangtok	140.00	103.00	30.00	175.00	175.00	25.00	25.00
	ii) Other Areas (L.S.G.)	35.00	20.03	5.00	65.00	—	10.00	—
	iii) Rural Sanitation Buildings	—	—	—	135.00	135.00	35.00	35.00
		—	—	—	60.00	60.00	10.00	10.00
	<b>Total</b>	<b>1800.00</b>	<b>1889.47</b>	<b>579.50</b>	<b>2860.00</b>	<b>2265.00</b>	<b>695.00</b>	<b>675.00</b>

## CHAPTER XXV

**Housing**

1. Provision of residential accommodation to State Government employees both at the State headquarters as well as the District and Sub-divisional levels are covered under this sector. In terms of actual coverage vis-a-vis the total number of Government employees, only 10 percent of the demands for residential accommodation has been fulfilled so far. During the VIIth Plan, in addition to 270 units of quarters which are expected to be completed, 388 more units are anticipated to be completed out of the provisions available under the Finance Commissions award for those personnel belonging to the Police and jail administration. The total number of residential units of all categories of State Government employees by the end of the VIIth Plan is expected to be of the order of 2044 units. To supplement the efforts made by the SPWD (Housing), loan assistance are also being extended to Government employees to build their own houses. Apart from Government housing schemes, programmes for providing housing assistance to benefit the poor and down-trodden are also being implemented in the rural areas in particular. Besides, the scheme for construction of housing units for lower and middle income groups are being implemented under the aegis of the State Housing Board.

2. Keeping in mind the overall position as far as housing facilities for Government servants are concerned, the emphasis in the VIIIth plan will be aimed at early completion of all on going construction of residential buildings and providing for new housing complexes at the places where shortages are the maximum. In order to off load the voluminous task ahead for the State Government, to build housing units to some extent, the scheme for providing loan assistance to Government employees for construction of their independent housing units will be continued. Apart from Government housing, the welfare programmes directed to serve the poor and needy will receive due importance through the Social Housing programmes under which construction assistance will be liberally extended to deserving families.

The programmes of the State Housing Board for construction and leasing out of the housing flats for lower and middle income groups will also continue to be supported under the plan.

For the VIIIth Plan a total outlay of Rs.836 lakhs has been envisaged out of which Rs.161 lakhs has been proposed during the year 1990-91. The detail scheme wise write up is outlined below :

**I STAFF QUARTERS AT GANGTOK**

**Eighth Plan : Rs. 235 Lakhs**

**Annual Plan 1990-91 : Rs. 40 Lakhs**

The construction of 24 units class II staff quarters at Development Area and 24 units class III quarters at Syari will spill over into the VIIIth Plan and for which purpose Rs.50 and Rs.35 lakhs respectively has been proposed for the VIIIth plan. The corresponding outlays for the construction of these buildings during 1990-91 are Rs. 20 lakhs and Rs. 10 lakhs respectively.

Apart from the above continuing schemes, it is proposed to construct 100 units of class III and IV quarters at Gangtok at a total cost of Rs.150 lakhs during the VIIIth plan. For the year 1990-91, provision of Rs.10 lakhs has been proposed.

**II STAFF QUARTERS AT DISTRICT HEADQUARTERS**

**Eighth Plan : Rs. 100 Lakhs**

**Annual Plan 1990-91 : Rs. 20 Lakhs**

The demand for residential buildings in the District headquarters is tremendous. During the plan, it is proposed to construct 50 units of staff quarters at Namchi, Geyzing and Mangan and for which purpose land will be acquired and construction taken up in earnest. A total outlay of Rs. 100 lakhs has been proposed with Rs.20 lakhs for the annual plan 1990-91.



### III STAFF QUARTERS AT OTHER PLACES

**Eighth Plan : Rs. 81 Lakhs**

**Annual Plan 1990-91 : Rs. 22 Lakhs**

The ongoing construction of the 6 units class IV quarters at Rabdentse and 2 units class III quarters at Rangpo will spill over to the VIIIth plan and for these two housing schemes Rs.4 and Rs.2 lakhs respectively has been provided for spillover expenditure. While the construction of the residential building at Rangpo will be completed during 1990-91 the completion of the quarters at Rabdentse will take place during the second year of the plan and therefore Rs.2 lakhs only has been provided for the spillover expenditure on account of this scheme during 1990-91.

As far as new schemes are concerned, construction of six units class III quarters and 16 units class IV quarters at Tadong has been envisaged with a total outlay of Rs.10 lakhs and Rs.15 lakhs respectively proposed for the VIIIth plan. The expenditure proposed in respect of these two schemes during the first year of the plan are Rs.5 lakhs each. In addition to this, for the SPWD personnel at Jorethang an outlay of Rs.50 lakhs has been proposed for construction of 1 unit of class I quarter, 2 units of class II quarters, 12 units of class III quarters and 4 units of class IV quarters. For this scheme Rs.10 lakhs has been proposed during 1990-91.

### IV QUARTERS FOR POLICE PERSONNEL

**Eighth Plan : Rs. 60 Lakhs**

**Annual Plan 1990-91 : Rs. 10 Lakhs**

Construction of 40 units of quarters for the Police personnel at a total cost of Rs.60 lakhs has been envisaged which would form part of the Finance Commission's scheme for upgradation. The outlay proposed during the 1990-91 annual plan is Rs.10 lakhs.

### V QUARTERS FOR MINISTERS

**Eighth Plan : Rs. 50 Lakhs**

**Annual Plan 1990-91 : Rs. 10 Lakhs**

The existing quarters for ministers are not only old structures but also located in congested surroundings. In order to provide for exclusive quarters with privacy and of proper

standards befitting the status of the occupants, it is proposed to acquire suitable sites within Gangtok and take up construction of 5 units of Minister's quarters with residential facilities for the household staffs. A total outlay of Rs.50 lakhs has been proposed for this purpose with Rs.10 lakhs during 1990-91.

### VI LOANS TO GOVERNMENT SERVANTS

**Eighth Plan : Rs. 60 Lakhs**

**Annual Plan 1990-91 : Rs. 12 Lakhs**

The scheme for providing house construction loans to Government Servants will be continued. A total outlay of Rs. 60 lakhs has been proposed for the VIIIth plan with Rs.12 lakhs during the annual plan 1990-91.

### VII SOCIAL HOUSING FOR THE ECONOMICALLY WEAKER SECTION

**Eighth Plan : Rs. 100 Lakhs**

**Annual Plan 1990-91 : Rs. 15 Lakhs**

So far the programme has been confined to distribution of GCI sheets. While the programme has definitely helped the economically weaker sections, it is now proposed that during the 8th Plan, the department will undertake proper development of housing colonies, with provision of basic facilities such as sewerage and drainage, land development, water supply and electricity that may be required. The idea is to build houses with contribution in kind and labour by the potential occupant and provided 25 percent of the cost of construction as subsidy. The remaining cost will be covered from the occupants over a period. It is felt that this will give a permanent benefit to EWS families and will also inject a sense of partnership on the part of the families. The proposed outlay is Rs.100.00 lakhs. Places such as the Munshi Colony, Diesel Power House etc. in Gangtok will be accorded priority in this programme. Outlay proposed during 1990-91 is Rs.15 lakhs.

**VIII ASSISTANCE TO SIKKIM HOUSING  
AND DEVELOPMENT BOARD****Eighth Plan : Rs. 150 Lakhs****Annual Plan 1990-91 : Rs. 25 Lakhs**

The Housing Board is responsible for building flats both of the MIG and LIG categories and has so far been able to construct 265 housing

units, 25 shops and one common room in the State. The activities in this area are extremely beneficial particularly to the Middle Income Groups and while the Housing Board be encouraged to raise finance from the financial institutions and also HUDCO, Governmental assistance to the tune of Rs.150 lakhs is proposed during the 8th Plan period and out of this Rs.25 lakhs is proposed during 1990-91.

## DRAFT EIGHTH FIVE YEAR PLAN ( 1990-95 ) AND ANNUAL PLAN 1990-91

HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE Statement GN - 2

DEPARTMENT : HOUSING

( Rs. in lakhs )

Code No.	Name of the Scheme/Project	Seventh Plan outlay (1985-90)	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which capital content	Annual plan 1990-91 proposed outlay	Of which capital content
1.	2.	3.	4.	5.	6.	7.	8.	9.
223221600	HOUSING							
01	Govt. Residential Building							
106	General Pool							
	Accommodation	274.00						
(i)	Staff Quarter at							
	Gangtok	124.00	102.55	15.10	235.00	235.00	40.00	40.00
(ii)	Staff Quarter District							
	Head Quarter	106.00	54.75	15.00	100.00	100.00	20.00	20.00
(iii)	Quarter at other							
	places	24.00	12.00	4.50	81.00	81.00	22.00	22.00
(iv)	Quarter for							
	Ministers	20.00	14.00	2.00	50.00	50.00	10.00	10.00
107	Police Housing	26.00	9.00	27.06	60.00	60.00	10.00	10.00
700	Other Housing	110.00			160.00	160.00	27.00	27.00
(i)	Social Housing	60.00	35.41	10.00	100.00	100.00	15.00	
(ii)	Loans to Govt.							
	Servants	50.00	40.00	10.00	60.00	60.00	12.00	12.00
80	General							
103	Housing Board	50.00	41.50	10.00	150.00	150.00	25.00	25.00
Total		460.00	309.21	92.25	836.00	836.00	154.00	154.00

## Urban Development

1. As elsewhere in the country, the migration of people from the rural areas to the urban centres has been increasing over the past decade in Sikkim. Even during the 1981 census it has been estimated that 33 percent of the population of Sikkim resides in urban areas and it is expected that this proportion will reach well above 40 percent by the end of the 8th Plan period. With this rapid rate of urbanisation, the number of problems that have to be tackled have multiplied. Urban development planning is a multi disciplinary effort, calling for an integrated and coordinated approach so that all aspects of urban planning are taken care of. So far in Sikkim this approach has not been adopted and the developments that have taken place have been dealing with problems in an adhoc manner. No doubt in the smaller towns a more comprehensive approach has been taken up but in Gangtok itself the problems have been growing without a proper policy of controlled expansion.

2. The responsibility for looking after urban requirements is that of the Government and the major portion of the responsibility is being discharged by the Local Self Government Department. Other departments such as Public Health Engineering, Roads, Power etc. are responsible for matters relating to water supply and sewerage, road construction and provision of electricity. Traffic management has been the responsibility of the Police Department. The need, therefore, of integrating the functions of all these separate departments, need hardly be emphasised and the problem needs to be effectively tackled during the 8th Plan period.

3. During the 7th Plan period projects involving urban sanitation, drainage, parking areas, construction of shopping centres, children parks, improvement of roads, foot paths and housing were some of the areas of concentration. Further under the plan for small and intermediate towns integrated development has been undertaken for Jorethang and Namchi. The L.S.G. Department has to take care of not only the State headquarters namely Gangtok but also of the district headquarters

and the designated bazar areas. The Department also undertook the responsibility of providing housing assistance to the economically weaker sections. The total expenditure during the 7th Plans would be on the order of Rs. 495.00 lakhs.

4. Broadly speaking, during the 8th Plan, it is proposed to undertake integrated plans for urban development including housing in order to see that the basic civic amenities and service are made available to the urban population. All future development programmes will be taken up on the basis of well conceived master plans and priority will be accorded to those urban centres which are growing rapidly and which have the potential for growth. The programme of integrated development of smaller and medium towns will be extended to include two more towns. Attention will also be paid to improve the revenue generating capacity of the department.

The proposals for the 8th Plan are indicated below :

### 1. DIRECTION AND ADMINISTRATION

**Eighth Plan: Rs. 200 lakhs**

**Annual Plan 1990-91 : Rs. 30 lakhs**

At the moment the L.S.G. Department is responsible only for some aspects of urban planning and even here the administrative machinery at the disposal of the department is extremely inadequate. The Town Planning Cell, for example, which has to look after the Town Planning aspects of all major towns has only one Divisional Engineer with a small staff. If an integrated approach relating to all aspects of Town Planning is to be adopted, a proper machinery to take care of the legislative aspects, zoning regulations, enforcement of building bye-laws, scrutiny and approval of building plans, sanitation and drainage and water supply requirements as also urban roads, electrification etc. will have to be taken care of. It is proposed that during the 8th Plan, for these purposes, a Gangtok Development Authority will be constituted. Personnel from those departments which are dealing with these problems will be brought into the GDA's

framework and some augmentation of the machinery will be required and more improved equipment will have to be provided. It is proposed that a provision of Rs. 200 lakhs be made available for this purpose.

## 2. IMPLEMENTATION OF THE MASTER PLAN FOR GANGTOK

**Eighth Plan: Rs. 350 lakhs,  
Annual Plan 1990-91 : Rs. 70 lakhs**

Gangtok has been growing at an extremely rapid rate and already some areas have become congested beyond acceptable levels. Serious problems in regard to over concentration of population in certain pockets, disposal of waste, garbage, storm water drainage and traffic management have been evident for some time. It is also apprehended that this present tendency to build multi storeyed buildings is extremely dangerous given the seismic vulnerability of the area. In order to study the problems of Gangtok and formulate plans for the future development of the town, M/S GILCON Project Services Ltd., of Delhi had been commissioned and they have now made a presentation of a Master Plan for Gangtok, with a time horizon upto year 2000 and a contingency provision of up to year 2005. The immediate need, in the light of the recommendations of M/S GILCON is to adopt proper policies for land use management, enact zoning regulations, reserve areas to be kept as green belts, development of residential areas and commercial zones and provide for a package of services including sanitation, water supply, sewerage, garbage disposal etc. The Bye-Pass area has been identified for future development and it is extremely important to see that this area is controlled from the point of view of housing and development of civic amenities. Suitable car parking facilities, traffic arrangements including building fly-overs, acquisition of land for the purpose of freeing development and planned infrastructure build up, will have to be taken up during the 8th Plan.

It is proposed to immediately take up the following Projects :-

### (i) Fly-Over at Metro Junction

This is required to relieve the tremendous traffic congestion in the area and separate the pedestrian traffic from the vehicular traffic. This will be integrated with the fly-over that is being constructed at the STNM complex.

### (ii) Traffic Management System near Food Godown

Once again in this area, owing to heavy traffic going down the National Highway and the traffic going down from the Lall Bazar area, congestion has become unmanageable. A project to grade separate the traffic will have to be taken up in this area.

### (iii) Development of Children's Parks area

Already a big parking lot has been developed in this area and with the shifting of the Police Station this area will have to be developed into a complex for providing sufficient space for the children to have a play ground. The idea is to have a multi storeyed parking lot the top of which will be developed as a play ground.

### (iv) Development of Lall Bazar area

This once again is extremely congested and the land is used in a very uneconomical manner. An integrated structure providing for parking as well as shopping is planned to be taken up in this area.

### (v) Land acquisition in selected areas for development of mini satellite townships, to relieve the congestion in the Gangtok area.

For all the above projects a provision of Rs. 300.00 lakhs is proposed during the 8th Plan. In addition to that certain quarters such as Sweepers' Quarters, public latrines and car parking facilities will also have to be developed and for this Rs. 50 lakhs will be required during the 8th Plan.

## 3. ENVIRONMENT IMPROVEMENT OF SLUMS

**Eighth Plan: Rs. 50 lakhs  
Annual Plan 1990-91 : Rs. 10 lakhs**

Provision of basic civic amenities such as drainage, sewerage, footpaths, water supply and lighting is envisaged to be taken up in selected areas of Gangtok town and also in the towns

of Singtam, Namchi, Mangan, Naya Bazar, Geyzing, Jorethang and Rangpo. A total provision of Rs. 50 lakhs is proposed for this effort.

#### 4. DEVELOPMENT OF OTHER BAZAR AREAS.

**Eighth Plan : Rs. 100 lakhs**

**Annual Plan 1990-91 : Rs. 15 lakhs**

It is necessary to take up provision of shopping centres, sweepers' quarters, parking place and public latrines in the growing towns such as Geyzing, Singtam, Namchi, Mangan, Naya Bazar, Pakyong, Rangpo, Melli, Rishi, Soreng and Ravangla. Provision of Rs. 1.00 crore is proposed for this purpose.

#### 5. INTEGRATED DEVELOPMENT OF SMALL AND MEDIUM TOWNS.

**Eighth Plan : Rs. 150 lakhs**

**Annual Plan 1990-91 : Rs. 25 lakhs**

Already development of Jorethang and Namchi towns has been taken up under the scheme with the basic objective of reducing rate of migration from rural areas to urban areas, to develop proper housing and urban facilities in a planned manner and to avoid development of slums in these towns. Considerable amount of work has been done in these two towns in terms of construction of roads, provision of drainage, provision of parking space and development of proper residential complex. It is proposed to take up the programme further to cover Gangtok as well as Rangpo and to continue the programmes in Namchi and Jorethang. In Gangtok it is proposed to take up construction of a Children's Park in the area to be vacated by the

Slaughter House as also provide parking spaces. In Rangpo, housing development and traffic and transportation development will be stressed upon. In Namchi the work in relation to construction of sewerage and drainage, and construction of Children's Park will be taken up. For all these programme Rs. 150.00 lakhs will be required. IDSMT is a Centrally sponsored scheme subject to a maximum of Central Assistance of Rs. 60 lakhs per town. Advantage will be taken of the CSS.

#### PROTECTIVE MEASURES IN URBAN AREAS

**Eighth Plan : Rs. 75 lakhs**

**Annual Plan 1990-91 : Rs. 12 lakhs**

The basic problem in urban centres in hill areas is the heavy discharge of rain water which is allowed to flow in an uncontrolled manner, tends to erode the bank and carry down soil. In the course of time such erosion is a serious threat to the buildings and other civic amenities in the major urban centres. In Gangtok, the problem has assumed serious dimensions particularly after the construction of the bye-pass as the unprecedented urban development has tended to clog certain areas which sharply increasing the water discharged in other areas as a result of which during the heavy rains water tends to flow in to some of the major drains beyond their carrying capacity. There is need for immediate attention in regard to all these drains or jhoras so that their banks are stabilised and the water made to flow in the desired direction. A total provision of Rs. 75 lakhs is proposed for this.

Out of a total provision of Rs. 925 lakhs for the Eighth Five Year Plan, Rs. 162 lakhs has been earmarked for the Annual Plan 1990-91. Schemewise allocation is given in GN - 2 statement.

## DRAFT EIGHTH FIVE YEAR PLAN (1992-95) AND ANNUAL PLAN - 1990-91

HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE Statement GN - 2

DEPARTMENT : URBAN DEVELOPMENT

(Rs. in lakhs)

Code No.	Name of the Scheme/Project	Seventh Plan Outlay (1985-90)	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	of which capital content	Annual Plan 1990-91 Proposed Outlay	of which capital content
1	2	3	4	5	6	7	8	9
223221700 STATE CAPITAL DEVELOPMENT								
001	Direction & Admn.	3.00	1.08	—	200.00	—	30.00	—
051	Construction	47.00	69.42	24.50	350.00	350.00	70.00	70.00
	i) Parking place	15.00	—	—	—	—	—	—
	ii) Super Market Complex	16.00	..	..	..	..	..	..
	iii) Other Schemes	16.00	..	..	..	..	..	..
	iv) Implementation of Master Plan	..	..	..	..	..	..	..
04800	Slum Improvement	20.00	24.15	6.00	50.00	..	10.00	..
03051	Integrated Development of small and medium Towns	10.00	49.46	10.00	150.00	150.00	25.00	25.00
05	Other Urban Development	58.00	..	..	..	..	..	..
001	Direction & Admn.	15.00	18.82	4.60	..	..	..	..
051	Construction	43.00	20.70	12.00	250.00	250.00	37.00	37.00
	i) Development of other Bazars	43.00	..	..	100.00	100.00	15.00	15.00
	ii) Protective measures in Urban Areas	..	..	..	75.00	75.00	12.00	12.00
	iii) Urban Roads	..	..	..	75.00	75.00	10.00	10.00
80800	Other Expenditure	..	..	..	75.00	75.00	10.00	10.00
	Town Planning Cell	12.00	11.93	2.90	..	..	..	..
Total		150.00	192.56	57.00	1000.00	600.00	172.00	120.00

## Information And Public Relation

1. The Information and Public Relations Department of the State plays a crucial role in keeping the general people fully informed about the various happenings and development activities taking place all over the State. The requisite information is conveyed through both written and audio visual means. Apart from publication and distribution of 'Sikkim Herald' in five main languages of the State, adhoc publications like "Hamro Sikkim" and compendium are also published with the idea of first hand knowledge regarding achievements made by various departments. The photographs depicting social cultural and developmental events too are displayed at Information centres spread all over the State.

2. During the VIIIth Five Year Plan period, the department proposes to attain the following objectives :-

- To raise the frequency of publication of "Sikkim Herald" and other adhoc publications ;
  - To improve the audio-visual section ;
  - To improve District Information centres by providing still and video cameras to take photographs of all the development activities taking place in the district and
  - To have close liaison with all the departments to highlight their achievements.
3. To achieve the above mentioned objectives the following proposals are put forward:-

### (i) DIRECTION AND ADMINISTRATION

**Eighth Plan : Rs. 3 lakhs**

**Annual Plan 1990-91 : Rs. 1 lakh**

In order to cope with the problem of increasing workload, the department proposes to strengthen its workforce by appointing some additional staff. A provision of Rs. 5 lakhs is kept for it.

### (ii) FILMS

**Eighth Plan : Rs. 6 lakhs**

**Annual Plan 1990-91 : Rs. 1 lakh**

To improve the present mass viewing arrangements, it is proposed to replace the existing 16 mm projectors and to purchase video cassette player sets for various information centres. An outlay of Rs. 6 lakhs is earmarked for the same.

### (iii) ADVERTISING AND VISUAL PUBLICITY

**Eighth Plan : Rs. 10 lakhs**

**Annual Plan 1990-91 : Rs. 2 lakhs**

In order to keep the people of the State abreast with the day to day events taking place in other parts of the country, the department subscribes to National news agencies like U.N.I., P.T.I., and INFA. Besides, the department also published a coloured calender every year. A provision of Rs. 10 lakhs is kept for these purposes.

### (iv) INFORMATION CENTRES

**Eighth Plan : Rs. 10 lakhs**

**Annual Plan 1990-91 : Rs. 1.50 lakhs**

It is proposed to strengthen the District Information centres by providing still camera alongwith cameramen to take photographs of the development projects, visit of VIP's, natural calamity etc. An outlay of Rs. 10 lakhs is earmarked for this proposal.

### (v) PHOTO SECTION

**Eighth Plan : Rs. 8 lakhs**

**Annual Plan 1990-91 : Rs. 1.50 lakhs**

To bring improvement in photo section of the department it is proposed to create some posts of cameraman, printers, Assistant Printers etc. to replace the old and out dated cameras with that of sophisticated automatic cameras and to instal a mini-colour laboratory. The department is incurring heavy expenditure on developing and printing of photographs in the market for want of colour-laboratory of its own. A provision of Rs. 8 lakhs is therefore earmarked for colour-lab., additional staff and replacement of cameras.

### (vi) PUBLICATIONS

**Eighth Plan : Rs. 50 lakhs**

**Annual Plan 1990-91 : Rs. 9 lakhs**

An outlay of Rs. 50 lakhs is proposed to improve the frequency of Sikkim Herald, the mouth piece of the government, which is published in five languages. The provision will also take care of certain extra posts and purchase of one photocopier.

The overall proposed outlay for this sector will be Rs. 89 lakhs. Rs. 16 lakhs has been provided for the Annual Plan 1990-91 and the scheme-wise allocation is given in GN - 2 statement.



DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN- 1990-91  
 HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE  
 DEPARTMENT : INFORMATION AND PUBLICITY

Statement GN-2  
 (Rs. in lakhs)

Code No.	Name of the Scheme/ Project	Seventh Plan Outlay (1985-90)	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	of which capital content	Annual Plan 1990-91 Proposed Outlay	of which capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
224222000 INFORMATION AND PUBLICITY								
01	Films	—	—	—	—	—	—	—
001	Production of films	—	7.48	1.50	6.00	—	1.00	—
60	Others							
001	Direction & Administration	—	3.83	2.00	5.00	—	1.00	—
003	Research & Training	—	0.06	0.05	—	—	—	—
101	Advertising & Visual Publicity	—	10.20	4.95	10.00	—	2.00	—
102	Information Centres	—	23.28	6.50	10.00	—	1.50	—
109	Photo Services	—	10.86	5.00	8.00	—	1.50	—
110	Publication	—	30.25	10.00	50.00	—	9.00	—
Total		47.00	85.96	28.50	89.00	—	14.00	—

## CHAPTER XXVIII

**Scheduled Caste/Scheduled Tribe Welfare**

1. The Department serves as the nodal authority for coordinating the efforts of the sectoral departments in implementing Tribal Sub-Plan and Special Component Plan for Scheduled Tribes. The Special Central Assistance for these programmes to various implementing departments are channelised through the Department.

2. The Department also coordinates and oversees the implementation of certain schemes meant for Scheduled Tribe families which are funded solely with Additional Special Central Assistance under Article 275(1) of the Constitution. The establishment of Cheese Plant, Sheda Education, Piggery and Broiler Raising, Cardamom Rejuvenation and Floriculture, are some of the types of activities that are undertaken out of such funds.

3. The Department is also responsible for ensuring the implementation of programmes under the Eighth and Ninth Finance Commission recommendations, such as 'Establishment of Model Tribal Villages' and Upgradation of Standard of Tribal Administration.

4. Apart from the above schemes, the Department directly implements a few welfare schemes entirely from its own budget (State Plan) resources. Economic Betterment Grant is one such scheme. Under this scheme, the deserving members of Tribal and Scheduled Caste families are given sewing machines, pairs of bullocks or blacksmithy tools according to their needs.

5. The most important scheme of this group in terms of both financial and physical magnitude is, however, the Pre-matric Scholarship Scheme, which accounts for nearly two-thirds of the total State Plan Budget and covers more than two thousand students each year at the existing rates.

6. In the past, Post-matric Scholarship Scheme used to be implemented by the Department as a 100 percent Centrally Sponsored Scheme till 1985-86 when it had to be suspended as the

Government of India refused to release funds on the ground that the expenditure should be borne by the State Government, as a part of the committed liability for schemes implemented till 1983-84.

7. The SC and ST families who live mostly in rural areas are economically very backward. In most villages the dividing line between the so-called rich and the poor is very thin indeed, the only distinguishing feature being the size of land holdings, which because of low productivity have not been able to make the families improve their living standards to any appreciable extent.

8. In the Eighth Plan our efforts under TSP and SCP as also the normal State Plan, shall be to bring about allround development of SC and ST families and above all, choose some of the most backward villages for implementing area-oriented integrated schemes designed to provide them with a package of assistance such as milch cows, piglets, land development, agriculture and horticulture development, approach road, drinking water supply, biogas plants, energy plantation, improved chulas, rural electrification, tiny industries, etc all calculated to provide employment opportunities and subsidiary income.

9. Scheme wise details of schemes envisaged during the Eighth Plan are outlined below:

**(i) ECONOMIC GRANTS**

**Eighth Plan : Rs. 20 lakhs**

**Annual Plan 1990-91 : Rs. 4 lakhs**

Under the Seventh Plan, 180 SC families and 189 ST families would have benefitted from this scheme against a target of 210 SC families and 194 ST families. In 1988-89 no funds were received for this scheme, which explains the low performance in the field. For the current year, we have secured an outlay of Rs. 1.00 lakh for SC families with a physical target of 50 families and Rs.2.00 lakhs for ST families with a physical target of 100 families. The total expenditure on this account during the Seventh Plan works out to Rs. 4.12 lakhs for SC and Rs.5.57 lakhs for ST.

The target group for this scheme is the economically weak SC and ST families, especially those in the interior. The scheme has, as expected, proved popular among this group and is eagerly looked forward to every year by the target group.

In the Eighth Plan we propose a financial target of Rs.6.50 lakhs and a physical target of 280 families among Scheduled Caste. The corresponding figures for Scheduled Tribes are Rs.13.50 lakhs and 560 families.

(ii) **EDUCATION**

**Eighth Plan : Rs. 301.50 lakhs**  
**Annual Plan 1990-91 : Rs. 59.50 lakhs**

(a) **PRE-MATRIC SCHOLARSHIPS**

**Eighth Plan : Rs. 274.10 lakhs**  
**Annual Plan 1990-91 : Rs. 54.50 lakhs**

Under the Seventh Plan during the Period 1985-90 4940 SC students and 6396 ST students are expected to benefit from this scheme at an expenditure of Rs.42.31 lakhs and Rs.55.77 lakhs respectively.

Since education is basic to the development of backward Tribals and Scheduled Castes to enable them to catch up with the advanced section of the society, the need to continue the scheme cannot be over emphasised.

Thus far, we have been granting scholarship for all classes at a uniform rate of Rs.850/- per student per annum. According to existing norms only one child per family is eligible for the scholarship. In the Eighth Plan we propose to adopt a graded rate Rs.360/- per annum for classes KG to IV, Rs.480/- per annum for classes V to VIII and Rs.850/- per annum for classes IX to X. The number of beneficiaries will be trebled in the first year of the Eighth Plan, so that more than one child per family can become eligible for scholarship. Emphasis will be placed on merit so that there is encouragement to those children who strive to achieve a higher order of programme.

A total physical target of 20,146 SC students and 28,640 ST students with a financial target of Rs.112.80 lakhs and Rs.161.30 lakhs respectively are proposed for the Eighth Plan.

(b) **POST MATRIC SCHOLARSHIP**  
**Eighth Plan : Rs. 18 lakhs**  
**Annual Plan 1990-91 : Rs. 3.50 lakhs**

Strictly speaking, Post-Matric Scholarship scheme is not a new scheme as it was implemented in the past as a Centrally Sponsored Scheme. As already mentioned above, however, the scheme was suspended from 1985-86 as the Government of India refused to release funds on the ground that the expenditure should be borne by the State exchequer as a part of the committed liability for schemes implemented upto 1983-84. After protracted correspondence with Government of India and exchange of notings with the State Finance Department, the latter has finally held out promise to release fund for 1988-89 and 1989-90 from Non-Plan resources. Since, however, the Non-Plan resources of the State Government are very limited, it may not be able to bear the strain of ever increasing demand for Post-Matric Scholarships with the rise of student population. We, therefore, intend implementing the scheme both under Plan and Non-Plan so that we may be able to double the number of beneficiaries and cover upto two students from each family. To this end, we propose to include it in the Eighth Plan as a new plan scheme.

In 1990-91, we propose to cover 40 SC students and 200 ST students at an estimated cost of Rs.0.50 lakh and Rs.2.50 lakhs respectively. In the Eighth Plan we have set physical targets of covering 245 SC students and 1220 ST students with financial target of Rs.3.00 lakhs and Rs.15.00 lakhs respectively.

(c) **PUBLIC SCHOOL SCHOLARSHIP**  
**Eighth Plan : Rs. 9.40 lakhs**  
**Annual Plan 1990-91 : Rs. 1.50 lakhs**

The need to encourage SC/ST students to get themselves enrolled in some of the premier institutions within and outside the State has been felt for quite sometime. This is with a view to see that the quality of education received by these students is substantially upgraded.

The idea is to sponsor a few meritorious SC and ST students to public schools like T.N. Academy as a pilot project. A beginning has already been made this year with the admission of 6 tribal students (2 each from Dzongu, Lachen and Luchung) to T.N. Academy on the basis of decision taken by the Government of Sikkim.

Since we do not have any budget provision for this scheme in the 1989-90, the department is sharing the expenditure with the Education Department. In the Eighth Plan, however, we propose to implement this proposals as a regular scheme. For 1990-91, our physical targets are 2 SC students and 6 ST students at an estimated cost of Rs.0.22 lakhs and Rs. 0.66 lakh respectively. In the Eighth Plan as a whole, we propose to cover 20 SC students and 50 ST students with a financial target of Rs.2.70 lakhs and Rs.6.70 lakhs respectively.

(iii) **TRIBAL AREA PROGRAMME**

**Eighth Plan : Rs.83 lakhs**

**Annual Plan 1990-91 : Rs. 13.00 lakhs**

A programme to bring integrated development of tribal villages will be implemented as a pilot project in the Eighth Plan. Under this programme the most backward villages will be chosen for providing them with a package of assistance of a multi-disciplinary content such as cattle-rearing, piggery, agriculture and horticulture development, soil conservation, P.H.S.C., drinking water supply and approach road as well as other programmes which are relevant to the particular socio-economic conditions prevalent in the area. The programmes are basically calculated to provide adequate employment opportunities and supplementary income. To begin with, this scheme is proposed to be implemented in three of the most backward villages, viz. Sakyong Pentong in Dzongu in North Sikkim, Men Rongong in North Sikkim and Zeel Hathidunga in West Sikkim at a total estimated cost of 83.00 lakhs.

(iv) **ADMINISTRATIVE AND MATERIAL SUPPORT**

**Eighth Plan : Rs. 52 lakhs**

**Annual Plan 1990-91 : Rs. 7.50 lakhs**

To streamline the functioning of the department, the Accounts Section will be strengthened by appointing an Accounts Officer, a Senior Accountant and two L.D.C.-cum-Typists for improving monitoring work. To bring about more effective coordination with all concerned at the district level with all district level officers of others departments, it is proposed to create the post of Project Director and three posts

of Project Officers so that each district headquarter may have one Project Officer. Other posts proposed to be created are i) one Research Officer ii) one stenographer under the Joint Secretary for expeditious disposal of correspondence and iii) four regular drivers to take care of existing vehicles.

The Monitoring Cell is proposed to be equipped with a computer and all the Project Officers in the district headquarters will be provided with telephones.

(v) **EDUCATION RESEARCH**

**Eighth Plan : Rs. 6.50 lakhs**

**Annual Plan 1990-91 : Rs.1.00 lakh**

In the Eighth Plan we propose to introduce family cards to all SC and ST families to facilitate the recording of various benefits which each family received with a view to giving them a package of help necessary for rising above the poverty line and sustaining it with income generating schemes. For this, we propose to embark on an extensive survey work to identify all such families. The survey which will be carried out in coordination with the Bureau of Economics and Statistics is proposed to be funded from the State Plan resources. A serious attempt will be made to go into all the aspects of tribal life, culture and folklore and their documentation. Their changing life - style under the impact of modernisation will also be studied under the programme. A competent and knowledgeable person will be recruited as Research Officer. In the Eighth Plan a sum of Rs.6.50 lakhs is proposed under this head. In 1990-91 the outlay proposed is Rs.1.50 lakhs.

Out of a total provision of Rs.475 lakhs for the Eighth Five Year Plan, Rs.87 lakhs has been earmarked for the Annual Plan 1990-91. Schemewise allocation is detailed in statement GN 2.

(vi) **WELFARE BOARDS**

**Eighth Plan : Rs. 12 lakhs**

**Annual Plan 1990-91 : Rs. 2 lakhs**

In order to meet the establishment overheads of the Welfare Boards for the Scheduled Castes as well as the Scheduled Tribes Wing, an outlay of Rs. 12 lakhs has been proposed for the Plan of which Rs. 2 lakhs is provided for in the 1990-91 Annual Plan.

## DRAFT EIGHTH FIVE YEAR PLAN ( 1990-95 ) AND ANNUAL PLAN - 1990 - 91

## HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE Statement GN - 2

( Rs. in lakhs )

## DEPARTMENT : SCHEDULED CASTE &amp; SCHEDULED TRIBES WELFARE

Code No.	Name of the Scheme/ Project	Seventh plan outlay (1985-90)	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which capital content	Annual Plan 1990-91 Proposed Outlay	Of which capital content
1	2	3	4	5	6	7	8	9
225222500	Welfare of Scheduled Castes, Scheduled Tribes & Other Backward Classes							
01	Welfare of Scheduled Castes	50.00	48.40	13.50	140.00	—	—	—
001	Direction & Admn.	—	12.63	3.15	15.00	—	2.00	—
102	Economic Development	—	3.12	1.00	6.50	—	1.30	—
277	Education	—	32.65	9.35	118.50	—	23.00	—
02	Welfare of Scheduled Tribes	70.00	67.04	22.50	233.50	—	—	—
001	Direction & Admn.	—	22.49	7.10	37.00	—	5.50	—
102	Economic Development	—	3.58	2.00	13.50	—	2.70	—
277	Education	—	40.97	13.40	183.00	—	36.50	—
80	General							
800	Other Expenditure	5.00	4.16	1.00	101.50	—	16.00	—
2252	i) Research & Training	1.00	0.09	—	6.50	—	1.00	—
	ii) Welfare Board	4.00	4.07	1.00	12.00	—	2.00	—
	iii) Tribal Area Programme	—	—	—	83.00	—	13.00	—
	Total	125.00	119.60	35.25	475.00	—	87.00	—

## CHAPTER XXIX

**Social Welfare**

1. The State Social Welfare Department runs destitute homes, creches, day care centres and provides stipends, scholarships, pensions etc. to designated target groups. It also supplies aids and appliances to the handicapped and has been instrumental in building and maintaining a hostel for working women situated at Gangtok.

2. During the Seventh Five Year Plan, the department concentrated on consolidation and strengthening of various programmes such as child welfare, women's welfare, welfare of physically handicapped, old age pension, social defence and grant in aid programmes. In addition to these, three destitute homes of a capacity of 200 children each, and one destitute home for 50 children has been started from the year 1987-88. The construction of working women's hostel at Namchi has been completed recently at a cost of Rs. 18.32 lakhs. Under the welfare of physically handicapped programme, a new scheme of awarding scholarship to the disabled has been started from 1987-88. A unit to produce chalk and candles has also been started at a sheltered workshop employing the disabled, at Jorethang, in addition to existing training/production centre in cane and bamboo craft. Apart from these, establishment of a counselling/deaddiction centre for drug addicts and alcoholics is planned to be taken up in 1989-90 at Gangtok.

3. During the Eighth Plan period, the department proposes to further expand the above mentioned programmes, the details of which are given below:—

**(1) DIRECTION AND ADMINISTRATION:****Eighth Plan: Rs. 15.00 Lakhs****Annual Plan 1990-91 : Rs.2 lakhs**

The Social Welfare wing was created under the Department of Health in 1976 and from that time onwards while there has been an expansion in the activities, very little strengthening of the administrative machinery has taken place. Being a small state constituting a separate directorate to deal with Social Welfare is not considered necessary. This can be considered sometime in the future but in the interim period, it is necessary to create the following posts:

(1) Joint Director and supporting staff such as, Sr. Acc't, LDC & Peon (2) Two posts of District Welfare Officer, LDC & Peon and (3) Superintendent cum Probation Officer, together with an Accountant, a Craft teacher, a Home attendant and a guard.

A provision of Rs. 15.00 lakhs will be required for creation of posts as mentioned above.

**(2) CHILD WELFARE****Eighth Plan: Rs. 26.50 lakhs****Annual Plan 1990-91 : Rs. 4 lakhs**

The Department runs destitute homes, day care centres, creches, recreation centres and Balwadis all over the State for the welfare of the children. During the Eighth Plan period emphasis will be on strengthening the services in the existing homes and centres with a view to provide vocational training in relevant crafts. It is proposed to set up five new centres of child welfare having capacity of 25 children each, two more recreation centres and two day care centres at Mangan and Namchi, the districts headquarters of the North and South Districts.

An outlay of Rs. 26.50 lakhs has been provided for these child welfare schemes.

**(3) WOMEN'S WELFARE****Eighth Plan: Rs. 26.00 lakhs****Annual Plan 1990-91 : Rs. 4 lakhs**

No new scheme was introduced for women's welfare during the Seventh Plan. Grant in aids were being given to various women's organisations for conducting training in tailoring, knitting, embroidery & handloom weaving. During the Eighth Plan period, however the emphasis will be on self-employment of the passed out trainees and opening of five new centres for training women in various crafts. Each of these centres will have ten trainees and one instructor. The formation of more mahila Mandals will be encouraged particularly for taking up income generating schemes. Further, it is proposed to organise Awareness Building Camps to make women aware of their rights and duties, health education with coverage of current topics concerning women's welfare.

in addition to two Working Women's hostels at Gangtok and Namchi, it is also proposed to set up such hostels at Gyalshing and Mangan which will have a capacity of 50 residents each.

A provision of Rs. 26.00 lakhs is earmarked for these women's welfare Schemes.

#### (4) WELFARE OF THE HANDICAPPED

**Eighth Plan: Rs. 24.00 lakhs**

**Annual Plan 1990-91 : Rs. 3.50 lakhs**

The department undertakes various programmes like stipend, supply of aid and appliances etc. for the welfare of handicapped children all over the State. During the Eighth Plan period, it is proposed to construct a building at Jorethang for the existing sheltered Workshop for disabled which is located at present in the Industrial shed, of Department of Industries. In the new building, the trainees will have more open space for work and storage.

Similarly, in the view of a sizeable number of mentally retarded children in Sikkim, it is proposed to set up a centre for mentally retarded at Gangtok. The proposal could not materialise earlier due to lack of funds.

A sum of Rs. 24.00 lakhs has been proposed for above mentioned welfare schemes for the handicapped people.

#### (5) GRANT IN AID PROGRAMME

**Eighth Plan : Rs. 30.00 lakhs**

**Annual Plan 1990-91 : Rs. 4.50 lakhs**

The Department will continue to give grant in aid to some of the selected voluntary social welfare organisations of the State for effective implementation of welfare schemes. The organisations to receive grant in aid are, Red Cross Society, Sikkim; Branch Dharma Chakra Centre, Rumtek, Denzong Lhadey Tackpa, Pelling, Kripasaran Buddhist Mission, Chakung, Sikkim Women's Council, Gangtok, as well as the State Social Welfare Board which has been running a large number of programmes particularly in the border areas.

A provision of Rs. 30.00 lakhs has been made for this purpose.

#### (6) SOCIAL DEFENCE

**Eighth Plan : Rs. 5.00 lakhs**

**Annual Plan 1990-91 : Rs. 1 lakh**

For care, protection, education, training, treatment and rehabilitation of Juvenile delinquents and neglected children, there is Juvenile Justice Act 1986 but in the State so far there is no statutory institution to keep the juvenile delinquents as a result of which the child offenders are put in Police lock-ups or jail, which is very harmful. Hence, it is proposed to have an observation home for young offenders. The home will be started at the jail staff quarters in Rongnek for which necessary repair works are being done.

A provision of Rs. 5.00 lakhs is proposed for the above mentioned home.

#### (7) OLD AGE PENSION

**Eighth Plan: Rs. 22.00 lakhs**

**Annual Plan 1990-91 : Rs. 3.50 lakhs**

The scheme of old age pension is being implemented in the State since April, 1981. The present number of beneficiaries comes to 600. More and more people are applying for this scheme. It is proposed to enhance the present rate of Rs. 60/- per month per person to Rs. 100/- per month per person.

A provision of Rs. 22.00 lakhs has been made for old age pension scheme.

#### (8) OTHER SCHEMES

**Eighth Plan: Rs. 2.50 lakhs**

**Annual Plan 1990-91 : Rs. 0.50 lakh**

In order to properly select and monitor the beneficiaries, it is proposed to have a cell for planning, monitoring and evaluation of the various programmes of the department. Further, it is also proposed to organise Health Camps for early detection of disabilities among the children and to provide some assistance to the needy and poorest sections of society who do not come under the purview of the above mentioned schemes.

A provision of Rs. 2.50 lakhs has been earmarked for other schemes.

In all, a sum of Rs. 151 lakhs is proposed for above mentioned schemes of Social Welfare Department during the Five Years of Eighth Plan period.

## DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN 1990 - 91

## HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE Statement GN-2

## DEPARTMENT : SOCIAL SECURITY WELFARE (Rs. in Lakhs)

Code No.	Name of the Scheme/ Project	Seventh Plan Outlay 1985-90	Expenditure 1985-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	of which Capital content	Annual Plan 1990-91 Proposed Outlay	Of which capital content
1	2	3	4	5	6	7	8	9
227223500	SOCIAL SECURITY WELFARE							
02	Social Welfare							
001	Direction & Admn.	5.00	2.44	2.00	15.00	—	2.00	—
101	Welfare of handi-capped	17.00	6.48	2.40	24.00	2.00	3.50	—
102	Child Welfare	15.00	12.13	3.80	26.50	3.20	4.00	—
103	Women welfare	13.00	7.80	3.00	26.00	10.00	4.00	—
106	Correctional Services (Social Defence)	15.00	0.12	1.88	5.00	—	1.00	—
107	Assistance to Voluntary Organisation	5.00	3.47	3.00	30.00	—	4.50	—
60	Other Social Security & Welfare Programmes							
102	Pensions (old age)	—	0.69	2.16	22.00	—	3.50	—
200	Other Schemes	—	0.14	0.50	2.50	—	0.50	—
	Total	70.00	33.27	19.06	151.00	15.20	23.00	—



## CHAPTER XXX

**Nutrition**

1. Nutrition Cell of Health Department implements programmes like Mid-Day-Meal Programme, Special Nutrition Programme, Nutrition Education-cum-Demonstration etc. for the benefit of children and pregnant mothers all over the State.

2. During the Seventh Plan period, an outlay of Rs. 270 lakhs was earmarked for various nutrition programmes which laid stress on providing nutritional support to every malnourished child, improving the quality of food and streamlining the system of distribution. The target groups were children below the age of six years, school going children upto Class V, and expectant and nursing mothers.

3. The following table shows the number of beneficiaries covered under the Special Nutrition Programme, and Mid-Day-Meal Programme during the Seventh Plan period in the four districts of the State :-

District	No. of Beneficiaries	
	Special Nutrition Programme	Mid-Day-Meal Programme
North	13,749	19,367
West	50,481	64,894
East	45,183	1,14,546
South	37,338	76,920
	<hr/>	<hr/>
	1,46,751	2,75,727
	<hr/>	<hr/>

4. During the Eighth Plan period, it is proposed to extend the above mentioned two programmes effectively to cover a wider area and a larger number of beneficiaries particularly in the remoter parts of the State.

**The schemewise proposals are as under:**

## (1) MID-DAY-MEAL PROGRAMME

**Eighth Plan : Rs. 296 lakhs**

**Annual Plan 1990-91 : Rs.45 lakhs**

Under the Mid-Day-Meal programme, ready to eat (R.T.E.) food made of cereals and pulses processed by the Food Processing Plant of Sikkim Flour Mills is distributed to all children of classes I to V. It is felt that there is a need to supplement midday diet to improve the nutritional quality of children. The items proposed to be supplied are sweet buns and milk. During the Seventh Five Year Plan, a total number of 2,75,727 beneficiaries were covered under this programme with an expenditure of Rs.117 lakhs. Per capital expenditure came to Rs.45 paise per day. During the Eighth Plan period, however, it is proposed to raise per capita expenditure from Rs.0.45p to Rs.0.65p per day to cope up with rise in prices and transportation costs. Thus a sum of Rs. 296 lakhs will be required to cover 2,76,378 numbers of beneficiaries during the eighth plan period. It is also proposed to strengthen the staff both at district and sub-division level to ensure that the programme is implemented effectively.

## (2) SPECIAL NUTRITION PROGRAMME

**Eighth Plan: Rs. 303 lakhs**

**Annual Plan 1990-91 : Rs.45 lakhs**

Under this programme, R.T.E. food is supplied to all the children of age group 0-6 years who are in I.C.D.S. centres, creches, B.A.P. (Border Area programme) centres and Pre-primary schools and to expectant and nursing mothers. During the Seventh Five Year Plan, with an average per capita expenditure of Rs.0.45 per beneficiary, a total sum of Rs.145 lakhs was provided to cover 1,46,751 nos. of beneficiaries. During the Eighth Five Year Plan, however, like the M.D.M. programme it is proposed to raise per capita expenditure to Rs.0.65p. Thus a sum of Rs.303 lakhs is proposed to cover 2,22,184 nos of beneficiaries during the eighth plan period.

Under the mid-day-meal programme, out of prescribed 200 days a year, it is proposed to cover 165 days and under S.N.P. out of prescribed 300 days a year, it is proposed to cover 210 days to limit expenditure. It is proposed to cover the remaining 35 days M.D.M. programme and 90 days under S.N.P. from Non-Plan budget.

**(3) DIRECTION & ADMINISTRATION**

**Eighth Plan : Rs. 5 lakhs**

**Annual Plan 1990-91 : Rs. 1 lakh**

In order to expand the coverage in respect of nutrition education, there is the need to create

the posts of Nutrition Educators, Supervisors, and helpers so that Nutrition cell can play an active role in this matter. These persons will be also utilised for Nutrition Education-cum-Demonstration programmes for the benefit of expectant and nursing mothers, panchayat members, gram sevikas, multi purpose health workers, DWCRA beneficiaries etc. An outlay of Rs. 5 lakhs is proposed for it.

Altogether a sum of Rs.604 lakhs is proposed for the above mentioned three schemes of the Nutrition Cell.

## DRAFT EIGHTH FIVE YEAR (1990-95) AND ANNUAL PLAN 1990-91

## HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE

Statement GN - 2

(Rs. in Lakhs)

## DEPARTMENT : NUTRITION

Code No.	Name of the Scheme/Project	Seventh Plan outlay (1985-90)	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which Capital content	Annual plan 1990-91 Proposed Outlay	Of which capital content
1	2	3	4	5	6	7	8	9

## 227223600 NUTRITION

02	Distribution of Nutritious Food							
101	Special Nutrition programme	145.00	80.00	19.95	303.00	—	45.00	
102	Midday Meal programme	117.00	86.00	21.85	296.00	—	45.00	
80	General							
001	Direction & Admn.	8.00	4.00	0.95	5.00	—	1.00	—
	<b>Total</b>	<b>270.00</b>	<b>170.00</b>	<b>42.75</b>	<b>604.00</b>	<b>—</b>	<b>91.00</b>	<b>—</b>

## CHAPTER XXXI

**Public Works**

1. The basic responsibility of undertaking construction of public buildings is that of the Public Works Department. The construction of Government office buildings as well as residential buildings is undertaken, at the State headquarters as well as at the District and sub-divisional levels. At the State headquarters the PWD took up and completed the new building block to accommodate the Education Department, near the existing Tashiling Secretariat, as well as the Forest Secretariat, Krishna Bhawan, and Yatayat Bhawan and office complex for the Power Department. There are however still several Departments which do not have Government built office buildings and are consequently occupying hired premises scattered all over the capital. At the District level, the District Secretariat buildings have been built in all the headquarters. However, the space in these District Secretariat Complexes are not adequate and as a result there are quite a few Departments which are housed in private buildings. At the sub-divisional level administrative complexes have been constructed at Soreng and Pakyong as part of the Finance Commissions Scheme for up-gradation of administration at these levels. The construction of sub-divisional administrative blocks at Rabong and Chungthang will be completed by the end of 1989-90. Apart from these administrative buildings, the completion of the New Sikkim House building at New Delhi is a notable achievement and in addition to this the construction of the Legislative building has been taken up in full swing and about 50 percent of the construction is likely to be completed by the end of VIIIth Plan. The shifting of the SPWD godown complex from the existing location has also been taken up and this will greatly ease the present congestion and also divert the heavy vehicular traffic from the main high-way passing through Gangtok. The new godown complex is being constructed away from Gangtok which will be completed during the VIIIth Plan. Storage facilities at other places have also to be developed gradually. The PWD has also been discharging the res-

ponsibility of constructing a number of buildings on behalf of departments like Education and Health. Schools & hospitals are the main-buildings taken up.

2. During the VIIIth Plan, emphasis will be laid on completion of all on-going projects especially the Legislative Assembly Complex and the godown infrastructure at Gangtok. The accommodation for those Government departments which are presently housed in private premises will also be catered to in a phased manner. The existing deficiencies as far as building facilities at the District and sub-divisional levels are concerned will also have to be taken care of. Materials management will be accorded utmost priority. Strict management and control over project cost will also receive due attention and in particular, specific R&D efforts will be made to evolve low cost building technology.

3. Keeping in mind the broad strategies envisaged during the VIIIth Plan, schemes have been selectively chosen and the spill over requirements for ongoing projects fully provided for in the Eighth Plan proposals. Total outlay of Rs.950 lakhs has been accordingly projected for the VIIIth Plan with Rs.200 lakhs during the first year of the Plan.

The scheme wise details are summarised below:

**I DIRECTION & ADMINISTRATION:**

**Eighth Plan: Rs. 40 lakhs**

**Annual Plan 1990-91 : Rs. 3 lakhs**

Under this caption Rs. 20 lakhs is proposed for meeting the establishment overheads of new posts to be created during the plan. In addition to this Rs.5 lakhs each for inservice training and survey and investigation has been proposed. The importance of establishing a material testing laboratory has been fully recognized and accordingly for creating this facility with requisite machinery and equipments, a sum of Rs.10 lakhs has been envisaged. The total allocation proposed under this scheme thus amounts to Rs.40 lakhs for the plan period and Rs.3 lakhs for the Annual Plan 1990-91.

## I DEVELOPMENT OF GANGTOK SECRETARIAT:

**Eighth Plan: Rs. 10 lakhs**  
**Annual Plan 1990-91 : Rs. 10 lakhs**

The State Secretariat at Gangtok has been expanded with the completion of the new annexe building for accommodating the Education Department. The existing car parking facility in the Secretariat complex is far too inadequate thereby causing considerable inconvenience. During the 1989-90 Annual Plan, the scheme for construction of a double storeyed car parking structure to provide parking space of 10,000 sq. ft. has been included. The construction of this facility will spill over to the VIIIth Plan and accordingly Rs.10 lakhs has been proposed in the VIIIth Plan all of which will be consumed in the initial year of the Plan.

## III OTHER ADMINISTRATIVE BUILDINGS:

**Eighth Plan: Rs. 100 lakhs**  
**Annual Plan 1990-91 : Rs. 12 lakhs**

There are several Departments like Industries, Irrigation, Cooperation etc. which continue to be housed in hired premises in the absence of their own administrative buildings. The accommodation requirements of such Departments have to be catered to and accordingly a provision of Rs.100 lakhs has been projected to construct required facilities within Gangtok. The outlay proposed during 1990-91 is Rs.12 lakhs.

## IV BUILDING CONSTRUCTION FOR THE SPWD:

**Eighth Plan: Rs. 150 lakhs**  
**Annual Plan 1990-91 : Rs. 20 lakhs**

The existing office building structure of the SPWD is not only inadequate to accommodate the various engineering wings but also in a poor condition requiring immediate reconstruction as the main section of the building is an old wooden structure which is gradually falling apart. In order to bring about a much better organised working arrangements for the engineering departments it is planned to construct a combined administrative building in place of the old structure which will be demolished. A total outlay of Rs.100 lakhs has been proposed

on this account with Rs. 15 lakhs during 1990-91.

In addition to the building requirements of the SPWD in the State headquarters, it is also considered necessary to establish basic building infrastructure for the Circle office covering South/West districts at Jorethang. This facility will bring about greater administrative efficiency and proper execution and supervision of various development activities in the districts falling under the jurisdiction of the Circle office. For this purpose Rs.50 lakhs has been proposed for the VIIIth Plan.

## V LEGISLATIVE ASSEMBLY BUILDING:

**Eighth Plan: Rs. 200 lakhs**  
**Annual Plan: 1990-91 : Rs. 100 lakhs**

The Legislative Assembly building was sanctioned at an estimated cost of Rs.263.00 lakhs. The anticipated expenditure during the VIIIth Plan will be of the order of Rs.100 lakhs. Completion of this prestigious building is likely to take place within the first two years of VIIIth Plan. To meet the spill over cost on account of this building, Rs.200 lakhs has been proposed with Rs.100 lakhs in the 1990-91 Annual Plan.

## VI STORAGE FACILITIES AT GANGTOK:

**Eighth Plan: Rs. 50 lakhs**  
**Annual Plan: 1990-91 : Rs. 20 lakhs**

The construction of a store-cum-godown infrastructure at Tadong is well under progress. The shifting of the existing godown to the new location is to be taken up in priority so that the congestion and the traffic intensity can be reduced to a great extent. For completion of the Central Store-cum-godown at Tadong which is presently under construction, a total outlay of Rs. 50 lakhs has been proposed with Rs.20 lakhs in the year 1990-91.

## VIII CONSTRUCTION OF CIRCUIT HOUSES

**Eighth Plan: Rs. 150 lakhs**  
**Annual Plan 1990-91 : Rs. 15 lakhs**

The existing guest house at Siliguri is not only old but also limited in accommodation capacity. Siliguri is the main transit point for people travelling into and out of Sikkim,

and hence it is considered necessary to develop a Circuit house with basic facilities. For development of such facility Rs. 30 lakhs has been earmarked. Besides this, there is a need for constructing circuit houses at certain District headquarters to cater to touring officials. It is therefore proposed to build circuit houses at Mangan and Namchi at a cost of Rs. 10 lakhs each. The State Government has already purchased a land at Calcutta where it is proposed to construct a guest house during the VIIIth Plan. For this project an outlay of Rs. 100 lakhs has been provided for the VIIIth Plan. The total outlay for this scheme during the VIIIth Plan would amount to Rs. 150 lakhs with Rs. 15 lakhs for the year 1990-91.

#### VIII CONSTRUCTION OF HIGH COURT COMPLEX:

**Eighth Plan: Rs. 100 lakhs**

**Annual Plan 1990-91 : Rs. 10 lakhs**

The existing High Court building is an old structure with limited space and minimal facilities. So far the High Court establishment has had to function against these odds with constant repairs and renovation of the building structure. It is therefore considered necessary to provide a decent High Court building Complex with basic facilities befitting the status of the judicial institution. Apart from this, residential buildings for the personnel of the High Court will also have to be provided in stages. Accordingly a total outlay of Rs. 100 lakhs has been proposed during the VIIIth Plan with Rs. 10 lakhs being the outlay for the Annual Plan 1990-91. This scheme will be executed as part of the Finance Commission scheme for upgradation.

#### IX CONSTRUCTION OF MODERN JAIL COMPLEX

**Eighth Plan: Rs. 150 lakhs**

**Annual Plan: 1990-91 : Rs. 15 lakhs**

The existing Central Jail complex at Gangtok is an old dilapidated structure which was built several decades ago. The need for establishment of a modern Central Jail Complex with all the paraphernalia conforming to modern jail standards has been long felt. Detail plans and estimates have now been formulated in consultation with jail authorities of other

like States in the country and a suitable site for the purpose also identified at a place located about 8 km. from Gangtok. The proposed jail complex will have exclusive section to accommodate various categories of inmates including a Borstal home for juvenile delinquents. Alongwith this, residential facilities for the jail administrative machinery is also envisaged. For the VIIIth Plan a total outlay of Rs. 150 lakhs has been proposed with Rs. 15 lakhs for the year 1990-91. The provision made under this scheme will form part of the upgradation scheme of the Finance Commission.

#### CONSTRUCTION AT THE SUB-DIVISIONAL HEADQUARTERS

**Eighth Plan: Rs. 100 lakhs**

**Annual Plan 1990-91 : Rs. 10 lakhs**

The administrative buildings at the four sub-divisional levels will be completed during the VIIIth Plan. With the exception of one sub-division, residential buildings have not been provided in the other three sub-divisions. Accordingly Rs. 100 lakhs has been projected for this purpose during the VIIIth Plan out of which Rs. 10 lakhs has been proposed for 1990-91 Annual Plan. This scheme also falls under the purview of the upgradation scheme of the Finance Commission.

Name of Schemes	(Rs. lakhs)	
	Proposed outlay 1990-95	Proposed outlay 1990-91
Direction and Administration	40.00	3.00
Gangtok Secretariat	10.00	10.00
Other Administrative Buildings	100.00	12.00
Building for SPWD	150.00	20.00
Legislative Assembly building	200.00	100.00
Storage cum godown at Gangtok	50.00	20.00
Circuit Houses	150.00	15.00
High Court Building	100.00	10.00
Jail Complex	150.00	15.00
Residential building at the Sub-divisional headquarters	100.00	10.00
	<u>1050.00</u>	<u>215.00</u>

## DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN - 1990-91

## HEADS OF DEVELOPMENT: OUTLAY AND EXPENDITURE

Statement GN-2

## DEPARTMENT: PUBLIC WORKS

(Rs. in lakhs)

Code No.	Name of the Scheme/Project	Seventh Plan Outlay (1985-90)	Expenditure 1985-86 to 88-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which capital content	Annual Plan 1990-91 Proposed Outlay	Of which capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
342205900	Public Works							
80	General							
001	Direction and Admn.	25.00	26.86	10.46	20.00	—	1.00	—
003	Training	—	0.10	—	5.00	—	0.50	—
004	Planning and Research (Survey & Lab.)	—	—	0.50	15.00	—	1.50	—
051	Construction	463.00	—	—	—	—	—	—
	i) Office Complex District Headquarters	25.00	38.70	2.00	—	—	—	—
	ii) Other Buildings	240.00	157.46	100.00	—	—	—	—
	iii) Guest House at New Delhi	178.00	236.25	—	—	—	—	—
	iv) Construction of Secretariat (Gangtok)	20.00	5.50	10.00	10.00	10.00	10.00	10.00
	vi) Building For SPWD	—	—	—	150.00	150.00	20.00	20.00
	vii) Legislative Assembly Building	—	—	—	200.00	200.00	100.00	100.00
	viii) Storage cum Godown at Gangtok	—	—	—	50.00	50.00	20.00	20.00
	ix) Circuit House	—	—	—	150.00	150.00	15.00	15.00
	x) High Court Building	—	—	—	100.00	100.00	10.00	10.00
	xi) Jail Complex	—	—	—	150.00	150.00	15.00	15.00
	xii) Residential Building and Sub-divisional Hqrs.	—	—	—	100.00	100.00	10.00	10.00
	xiii) Other Admn. Building	—	—	—	100.00	100.00	12.00	12.00
	Total	488.00	464.87	139.50	1050.00	1010.00	215.00	212.00

## Printing And Stationery

1. The Sikkim Government Press functioning under the Printing & Stationery Department caters to the bulk printing needs of the various departments in the State Government.

The department is responsible for the printing of government news bulletin "Sikkim Herald" in four languages viz., English, Nepali, Bhutia & Lepcha plus various forms like vouchers, registers, letter heads etc. used by Government departments. In addition, the department is involved in printing of papers relating to State Legislature, budget documents, gazette notifications, electoral rolls, ballot paper, almanac and other Government publications. The department has envisaged to undertake printing of text books, colour printing etc. as additional revenue generating activity.

2. The Department at present has letter-press and the same was modernised during the 7th Five Year Plan with the acquisition of modern machines like Automatic Printing Machine, automatic cutting machines, stitching machine, perforating machines etc. The expenditure during 7th Five Year Plan will be to the tune of 49.32 lakhs.

3. The demand for printing is ever increasing. The Department at present takes up about 1.50 crores of printing work annually and out of these, it is estimated that the work worth about Rs. 30 lakhs can be handled during the year 1989-90 in the press. The remaining work is to be done through the private presses. The main problem is the inherent limitation of the letter press for bulk printing with different colours.

4. It is the endeavour of the Department to meet the printing requirement through the Government Press to the extent possible.

5. Viewed in this perspective the overall strategy in the 8th Plan will be to expand the capacity of the press by having off-set printing facilities and creation of necessary unit with trained manpower.

The details are as follows :

### 6. (1) DIRECTION & ADMINISTRATION

**Eighth Plan: Rs.21 lakhs**

**Annual Plan 1990-91 : Rs.3 lakhs**

Keeping in view the modernisation and expansion strategy that has to be adopted during the Eighth Plan period. It is proposed to augment the present staff force. Since the technology of the unit proposed to be installed will be different from the existing one, it will be necessary to create new posts like Desktop operators, Layout Artist, Retouching Man, Grinding Man, Plate Making Man, Machine Operators, Cameraman etc. A total outlay of Rs. 21.00 lakhs is proposed to meet the expenses for creation of such posts.

### (2) MACHINERY AND EQUIPMENT

**Eighth Plan: Rs.55 lakhs**

**Annual Plan 1990-91 : Rs.40 lakhs**

With the modernisation of the Press during 1987-88, the upgradation of the letter press section is complete. It is felt necessary to augment operational efficiency and production capacity of the Press by installing an offset Unit with Desktop facility. This will not only enable the Press to attain the state of art technology but also enable the Press to take up bulk printing, colour and text-book printing. The existing Tibetan and Lepcha types are badly in need of replacement as they have become obsolete and wornout. With the Governments' decision to bring out Sikkim Herald in Limboo language, the need to acquire types and other ancilliary equipments for getting the publication materialised has been felt. The press will also have to maintain an adequate stock of matrices, spare parts and expendable materials. A total outlay of Rs. 55.00 lakhs is earmarked to meet the above requirements.



(3) **EXTENSION OF EXISTING PRESS BUILDING AND PROVIDING ACCOMMODATION FOR EMPLOYEES**

**Eighth Plan: Rs.10 lakhs.**  
**Annual Plan 1990-91 : Rs.5 lakhs**

In order to cope up with the expansion of work consequent upon purchasing more machines, it is necessary to expand the existing operational area. The Press building at present has very limited space even to accommodate the existing machines. In the case of binding section, the working space is very cramped and will not be sufficient to undertake the work generated by the new machine. Further, during emergencies apart from the normal shift, overtime works are called upon to be performed for the whole night to meet dead lines. It has therefore been found necessary to expand the press building towards the hill side, where there is sufficient land. With the expansion, working space will be generated not only for binding section but also for the composition section which is already over crowded because of shortage of space. Along with the expansion, it is proposed to construct two 10 unit class III Quarters in the compound of the Press building so that the staff working on the

evening and night shifts can be accommodated. A sum of Rs.10.00 lakhs has been earmarked for extension of Press building and construction of residential quarters.

(4) **RESEARCH AND TRAINING :**

**Eighth Plan: Rs.5 lakhs**  
**Annual Plan 1990-91 : Rs. 0.50 lakh**

The department has been running an apprenticeship scheme to impart training on various printing skills. Practically all the apprentices under the scheme have been suitably employed either in the press itself or in other private firms after successful completion of training. Further, printing technology is a fast growing one. Training of existing and future staff as such is a must, not only to increase their operational standard but also to maintain their existing standard. The department also proposes to establish a library for use of the technical staff. A total outlay of Rs.5.00 lakhs has been earmarked for the above schemes. (5) Out of the total outlay of Rs.91.00 lakhs proposed for the 8th plan period, Rs.48.50 lakhs has been earmarked for the Annual plan 1990-91. Schemewise allocation have been given in GN-2 statement.

## DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN - 1990-91

## HEADS OF DEVELOPMENT : OUTLAY AND EXPENDITURE

Statement GN-2

## DEPARTMENT: STATIONARY AND PRINTING

(Rs. in lakhs)

Code No.	Name of the Scheme/Project	Seventh Plan Outlay (1985-90)	Expenditure 1985-86 to 1988-89	Outlay 1989-90	Proposed Outlay Eighth Plan 1990-95	Of which Capital content	Annual Plan 1990-91 Proposed Outlay	Of which Capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
342205800 STATIONERY & PRINTING								
103	Government Press							
i)	Direction and Admn.	1.85	5.12	3.10	21.00	—	3.00	—
ii)	Machinery & Equipment	20.00	31.45	1.90	55.00	—	40.00	—
iii)	Research and Training (stipend)	1.15	1.01	0.75	5.00	—	0.50	—
iv)	Minor works	4.00	6.23	1.25	—	—	—	—
v)	Building	—	—	—	10.00	10.00	5.00	5.00
Total		27.00	43.81	6.75	93.00	10.00	48.50	5.00

## DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN 1990-91

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

## AGRICULTURE &amp; ALLIED SERVICES

## 1. PRODUCTION OF FOODGRAINS

**Rice**

Irrigated	0010	'000 Tonnes	20.00	18.60	20.00	28.00	22.00
Unirrigated	0020	,,	..	..	..	..	..
Total	0030	,,	20.00	18.60	20.00	28.00	22.00

**Wheat**

Irrigated	0040	,,	..	..	..	..	..
Unirrigated	0050	,,	22.00	17.80	20.00	27.00	22.00
Total	0060	,,	22.00	17.80	20.00	27.00	22.00

**Maize**

Irrigated	0130	,,	..	..	..	..	..
Unirrigated	0140	,,	55.00	57.00	60.00	70.00	61.50
Total	0150	,,	55.00	57.00	60.00	70.00	61.50

**Other Cereals**

Irrigated	0160	'000 Tonnes	..	..	..	..	..
Unirrigated	0170	,,	15.00	8.60	12.00	17.00	12.50
Total	0180	,,	15.00	8.60	12.00	17.00	12.50

**Pulses**

Irrigated	0190	,,	..	..	..	..	..
Unirrigated	0200	,,	16.00	13.00	14.30	18.00	15.00
Total	0210	,,	16.00	13.00	14.30	18.00	15.00

**Total Foodgrains**

Irrigated	0220	,,	20.00	18.60	20.00	28.00	22.00
Unirrigated	0230	,,	108.00	96.40	106.30	132.00	111.00
Total Foodgrains	0240	,,	128.00	115.00	126.30	160.00	133.00

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

## 2. COMMERCIAL CROPS

## a. Oilseeds

## i. Major oilseeds

Rape & Mustard	0280	'000 Tonnes	8.00	7.00	7.30	9.00	7.50
Total (i)	0300	,,	8.00	7.00	7.30	9.00	7.50

## ii. Others -

Soyabean	0310	,,	7.80	5.80	6.00	9.70	6.20
Other oilseeds	..	,,	0.20	0.20	0.20	1.30	0.30
Total (i i)	0350	,,	8.00	6.00	6.20	11.00	6.50

Total Oilseeds (a)	0360	,,	16.00	13.00	13.50	20.00	14.00
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## b. Other Commercial

Large Cardamom	..	,,	4.50	3.60	3.80	5.00	3.90
Potato	..	,,	30.00	31.60	34.00	50.00	36.00
Ginger	..	,,	15.00	14.00	15.00	20.00	16.00
Other tuber and Rhizomatic crops	..	,,	2.47	2.00	2.50	5.00	3.00
Minor Commercial Crops	..	'000 Tonnes	0.08	0.06	0.10	0.20	0.10
Total other Commercial Crops (b)	..	,,	52.05	51.26	55.40	80.20	59.00
Total Commercial Crops (2)	..	,,	68.05	64.26	68.90	100.20	73.00

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>3. MAJOR HORTICULTURAL CROPS</b>								
<b>a. Fruits</b>								
	Citrus	..	'000 tonnes	17.00	14.50	16.50	20.00	17.00
	Apple	0410	,,	0.60	0.10	0.10	3.00	0.10
	Banana	0410	,,	1.95	2.40	2.70	3.50	2.85
	Guava	..	,,	1.00	0.90	1.10	3.00	1.20
	Plum	..	,,	1.00	0.85	1.00	2.00	1.10
	Other fruits	..	,,	2.53	2.25	2.60	4.50	2.75
	Total Fruits (a)	..	,,	24.08	21.00	24.00	36.00	25.00
<b>b. Vegetable</b>								
	Total Major Horticultural Crops (3)	..	,,	30.00	32.00	34.00	45.00	35.00
		..	,,	54.08	53.00	58.00	81.00	60.00
<b>c. Flowers</b>								
i.	Cut Flowers	..	Lakh Nos.	..	3.00	2.50	30.00	5.00
ii.	Planting Materials	..	,,	..	5.00	5.00	40.00	8.00
<b>4. IMPROVED SEEDS</b>								
<b>a. Production of Seeds</b>								
i.	Cereals	0470	'000 Tonnes	0.34	0.22	0.27	0.35	0.29
ii.	Pulses	0480	,,	0.07	0.04	0.06	0.08	0.06
iii.	Oilseeds	0490	,,	0.07	0.04	0.06	0.09	0.06
iv.	Potato	..	,,	3.20	3.10	3.40	4.00	3.50
v.	Ginger	..	,,	0.20	0.25	0.30	0.55	0.33
vi.	Vegetables	..	,,	0.50	0.04	0.03	0.06	0.03
vii.	Others	..	,,	0.04	0.03	0.03	0.04	0.03
	Total seed							
	Production (a)	0520	,,	3.97	3.72	4.15	5.17	4.30
<b>b. Distribution of Seeds</b>								
i.	Cereals	0530	,,	0.55	0.49	0.52	0.70	0.55
ii.	Pulses	0540	,,	0.20	0.08	0.15	0.20	0.16
iii.	Oilseeds	0550	,,	0.13	0.06	0.10	0.15	0.11
iv.	Potato	..	,,	0.71	0.65	0.85	1.50	0.96
v.	Ginger	..	,,	0.22	0.25	0.30	0.55	0.33
vi.	Vegetables	..	,,	0.05	0.03	0.04	0.06	0.04
vii.	Others	..	,,	0.06	0.03	0.04	0.08	0.05
	Total seed							
	Distribution (b)	0580	,,	1.92	1.59	2.00	3.24	2.20

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>5. CHEMICAL FERTILISERS</b>								
a.	Nitrogenous (N)	0590	'000 tonnes	2.00	1.10	1.70	3.00	1.90
b.	Phosphatic (P)	0600	"	0.80	0.65	0.95	1.50	0.95
c.	Potassic (K)	0610	"	0.20	0.15	0.35	0.50	0.35
	Total (N+P+K)	0620	"	3.00	1.90	3.00	5.00	3.20
<b>6. PLANT PROTECTION</b>								
a.	Pesticides Consumption (Technical Grade Material)	0630	"	0.035	0.020	0.032	0.04	0.033
b.	Area Coverage	0640	'000 Ha.	60.15	43.03	57.60	72.00	59.40
<b>7. AREA UNDER DISTRIBUTION</b>								
a.	Fertilisers	0650	'000 Ha.	45.00	28.50	45.00	75.00	48.00
b.	Pesticides	0660	"	30.00	16.00	25.60	32.00	26.40
<b>8. HIGH YIELDING VARIETIES</b>								
<b>a. Rice</b>								
	Total area cropped	0670	"	19.20	18.00	18.20	22.00	19.50
	Area under HYV	0680	"	11.00	12.00	12.00	14.30	13.00
<b>b. Wheat</b>								
	Total area cropped	0690	"	20.50	11.60	11.80	15.00	12.80
	Area under HYV	0700	"	11.00	11.48	11.70	14.90	12.70
<b>c. Maize</b>								
	Total area cropped	0750	"	53.50	40.50	40.60	42.50	41.30
	Area under HYV	0760	"	20.00	22.03	24.30	27.00	25.00
	Total area under the above cereals	0770	"	93.20	70.10	70.60	79.50	73.60
	Total area under HYV of above cereals	0780	"	42.00	45.51	48.00	56.20	50.70
<b>9. DRYLAND/RAINFED FARMING</b>								
<b>a. Development of micro-watersheds (Cumulative)</b>								
i.	No. of micro-watersheds	0790	No.	20	16	20	20	4
ii.	Area covered under micro-watersheds	0800	'000 Ha.	20.00	16.00	20.00	20.00	4.00
iii.	Land development	0810	"	0.60	1.20	1.50	2.00	0.40
iv.	Water harvesting/storage structures	0820	No.	20	16	20	20.00	4

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
b.	Area covered outside the selected micro-watersheds by rainfed farming practices	0830	'000 Ha.	15.00	15.00	15.00	15.00	15.00
c.	Adoption of rainfed/dryland farming practices in and outside the selected micro-watersheds							
i.	Distribution of seed-cum-fertiliser drills	0840	No.	10	10	20	20	5
ii.	Distribution of other improved agricultural tools & implements	0850	No.	9,000	7,000	9,000	10,000	2,000
iii.	Distribution of Chemical Fertilisers	0860	'000 Tonnes	1.50	0.65	0.70	1.00	0.20
iv.	Distribution of improved seeds	0870	,,	0.30	0.10	0.30	0.50	0.30
10	<b>CROPPED AREAS</b>							
	(Cumulative)							
a.	Net	0980	'000 Ha.	105.00	97.80	99.60	106.00	101.00
b.	Gross	0990	,,	160.00	151.50	162.20	184.50	166.00
11	<b>STORAGE</b>							
a.	Owned capacity with State Government (Cumulative)	1060	'000 Tonnes	10.00	7.00	10.00	10.00	2.00
b.	Cold storage	...	No.	1	..	..	..	..
12	<b>SOIL/CONSERVATION SCHEME (L.U)</b>							
	Soil Conservation in Watershed Areas	..	1000 Hac.	33.500	15.433	2.550	18.075	3.616
	Development of perennial Water sources	..	Hac.	..	..	..	500	100
	Survey & Investigation	..	Hac.	..	..	..	7145	1430
	<b>Total</b>		1000Hac Km.	33.500 ..	15.443 40	2.550 15	25.720 189	5.145 40

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

**ANIMAL HUSBANDRY & VETERINARY SERVICES**

## 13 ANIMAL HUSBANDRY &amp; DAIRY PRODUCTS

(a) Milk	1070	1000 tonnes cum	27.00	25.00	27.00	36.00	29.00
(b) Eggs	1080	millions Nos. cum	6.30	11.50	12.00	18.00	13.00
(c) Wool	1090	(1 lakhs Kgs. cum	0.30	0.28	0.30	0.35	0.31

## 14. ANIMAL HUSBANDRY PROGRAMME

(a) No. of A.I. Centres	1110	Nos.	2	2	2	4	4
(b) No. of Frozen semen station	1100	Nos	1	1	1	2	2
(c) No. of insemination performed with exotic bull semen annually	1120	(in lakhs)	0.30	0.27	0.15	0.80	0.20
(d) cross bred female animals	1130	- do -	0.25	0.22	0.02	0.30	0.06
(e) Establishment of sheep	1140	Nos.	3	3	3	2	2
(f) No. of Broilers	—	(in lakhs)	0.75	0.70	0.18	2.50	0.50
(g) Sheep & wool extension centres	1150	Nos.	5	5	5	2	2
(h) Intensive egg & poultry production cum marketing centres	1170	Nos.	1	-	1	1	1
(i) Establishment of fodder seed production farm	1180	Nos.	5	4	5	10	7
(j) Veterinary Hospital (New)	1190	„	10	11	12	15	13
(k) Vety. Dispensaries	1200	„	25	25	25	31	27
(l) Stockman centres	—	„	64	45	55	75	60
(m) Fluid milk plants	1210	„	2	2	2	2	2
(n) Milk products factory (Cheese factory)	1220	„	1	—	1	1	1
(o) District Dairy co-operation Unions	1230	„	1	1	1	1	1



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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

## 15 EXTENSION &amp; TRAINING

		Nos.						
(a)	Farmers to be imparted training	—	„	470	480	500	2000	500
(b)	Stockmen to be trained	—	„	80	70	20	200	40
(c)	Calf Rallies	—	„	50	42	10	80	16
(d)	Exhibitions	—	„	36	30	5	80	16
(e)	Farmers field days	—	„	60	40	10	80	16
(f)	Livestock shows	—	„	3	1	1	10	2
(g)	Stockman Training in A.I.	—	„	42	40	10	200	40
(h)	Screening of films	—	„	125	75	40	80	16

## 16 VETERINARY SERVICES &amp; ANIMAL HEALTH

(a)	Cases treated	—	(in lakhs)	5.50	6.66	1.70	10.00	2.00
(b)	Establishment of checkpost	—	Nos.	3	3	4	6	5
(c)	Establishment of D.I. Lab.	—	„	1	1	1	2	2
(d)	Vaccination against Anthrax, H.S.Swin fever F.M.D.	—	(in lakhs)	3.75	2.55	1.35	3.50	1.00
(e)	Vaccination against R.D.	—	„	5.00	4.75	5.00	7.30	2.00
(f)	Castration in pig, goats	—	„	0.20	0.15	0.18	0.30	0.06
(g)	Destruction of dogs	—	„	0.15	0.12	0.20	0.20	0.05
(h)	A.R.V. Vaccinations	—	„	0.20	0.12	0.15	0.20	0.06
(i)	Mobile Veterinary units	—	Nos.	7	3	3	4	1

## 17 INVESTIGATION &amp; STATISTICS

(a)	14th. Quinquennial Livestock Census	—	„	1	1	1	1	—
(b)	Production Surveys	—	„	10	6	4	10	2

## 18. CATTLE DEVELOPMENT

(a)	Establishment of A.I. Sub-centres	—	Nos.	50	62	15	40	8
(b)	Establishment of Heifer Farm	—	„	1	1	1	2	2
(c)	Natural Services done	—	„	0.20	0.13	0.025	0.17	0.03

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(d)	Breeding bull distribution	—	Nos.	—	—	—	—	—
(i)	New allotment	—	—	150	241	15	100	20
(ii)	Replacement of unservicable bulls	—	—	100	100	100	50	5
(e)	Milch cow distribution	—	—	2000	800	500	2000	400
<b>19. POULTRY DEVELOPMENT</b>								
(a)	Establishment of poultry demonstration units							
(i)	at Dispensary level	—	—	80	15	25	—	—
(ii)	at farmers' level	—	—	500	400	500	1000	200
(b)	Distribution of birds to farmers	—	—	10,000	4700	5000	50,000	10,000
(c)	Establishment of duck rearing farm	—	—	2	2	—	9	2
(d)	Chick to be hatched	—	(Nos. in lakhs)	7.50	5.00	4.50	10.00	2.00
(e)	Demonstration unit of broilers	—	Nos.	125	90	60	200	40
(f)	Assistance for establishment of poultry units	—	(Nos. in units)	200	150	200	400	80
<b>20. SHEEP &amp; WOOL &amp; GOAT DEVELOPMENT</b>								
(a)	Breeding bucks distribution	—	Nos.	225	150	10	100	20
(b)	Assistance for establishment of goatery units	—	Nos.	100	90	10	50	10

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

## 21. PIGGERY DEVELOPMENT

(a)	Breeding boar distribution	—	Nos	90	152	175	250	50
(b)	Establishment of demonstration at Farmer's level	—	Nos	400	343	500	1000	200
(c)	Piglets to be produced in farms for distribution	—	Nos	2500	1600	800	500	100
(d)	Assistance for establishment of piggery units by progressive farmers	—	Nos	200	95	100	500	100

## 22. FEED &amp; FODDER DEVELOPMENT

(a)	Establishment of fodder demonstration units	—	Nos	80	400	100	1000	200
(b)	Distribution of chaff cutters	—	Nos	100	65	20	200	40
(c)	Distribution of fodder plants/trees	—	(Nos. in lakhs)	90.00	82.79	0.45	200.00	40.00
(d)	Distribution of Bun-milk	—	Kgs.	8000	6000	1000	—	—
(e)	Distribution of fodder seeds	—	Tonnes	75	15	10	80	16
(f)	Distribution of minikits	—	Nos.	10,000	9,055	3,000	20,000	4,000
(g)	Distribution of livestock feed	—	tonnes	500	300	200	1000	200

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>23. MEAT PROCESSING (SLAUGHTER HOUSE)</b>								
	(a) Construction of modern slaughter house	—	Nos	1	—	1	1	1
	(b) Slaughter house waste processing units	—	,,	1	—	1	1	1
<b>24. DAIRY DEVELOPMENT</b>								
	(a) Milk collection centres	—	,,	50	40	20	60	12
	(b) Distribution of Milk Cans	—	,,	800	775	50	200	40
	(c) Distribution of cream separator	—	,,	75	40	10	—	—
<b>25. OTHER LIVESTOCK DEVELOPMENT</b>								
	(a) Equine breeding farm	—	,,	—	—	1	1	1
	(b) Yak breeding farm	—	,,	—	—	1	1	1

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>FISHERIES</b>								
26	FISH PRODUCTION							
	(a) Inland	1240	Tonnes	100	80	85	150	100
	(b) Marine	1250	"	—	—	—	—	—
27	FISH SEED PRODUCTION							
	(a) Fry	1290	million	1.0	0.60	0.9	5.1	1.5
	(b) Fingerlings	1310	"	0.15	—	0.3	2.0	0.10
28	FISH SEED FORMS	1310	No.	5	2	1	6	2
<b>WATER AREA</b>								
	(a) Nursery	1320	Hac.	2.0	2.0	0.2	1.50	0.5
	(b) Rearing	"	"	2.0	1.19	0.1	36.50	1.00
<b>FORESTRY</b>								
29	FORESTRY							
	(a) Plantations of quick growing species	1340	Hac.	1250	532	400	2500	350
	(b) Economic & Commercial Plant	1350	"	4500	2632	800	5000	750
	(c) Social Forestry	1360	"	6500	5200	1270	11000	1700
	(d) Afforestation including plantation under various C.S.S							
	(i) Trees to be planted	370	No.(Lakh)	—	457	160	800	160
	(ii) Trees survived	1380	"	—	—	—	—	—
30	PRODUCTION OF SOME SELECTED FOREST PRODUCE							
	(i) Timber	1410	Cubic	—	16500	4000	20000	4000
	(ii) Fuelwood	1420	"	—	26500	7500	50000	8000

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Sl. No.	Item	Code No.	Unit	Seventh Plan 1985-90 target	Achievements 1985-86 to 1988-89	Anticipated Achievements 1989-90	Eighth plan proposed targets 1990-95	Annual Plan 1990-91 proposed target
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>COOPERATION DEPARTMENT</b>								
31	<b>CREDIT SOCIETIES</b>							
	No. of MPCS		Nos.	..	..	..	4	1
	No. of Viable Societies		..	..	..	..	4	1
	Membership		..	2854	800	200	5000	1000
	Membership belonging to weaker Section		..	1712	440	120	3000	700
	Deposits		Rs. Lakhs	..	..	..	20.00	4.00
	<b>Loans Advance</b>							
	a) Short term		..	100.00	27.89	22.00	100.00	20.00
	b) Medium term		..	75.00	3.00	5.00	80.00	15.00
	c) Long term		..	50.00	..	..	20.00	5.00
	<b>Loan Recovery</b>							
	a) Short term		..	..	13.27	27.00	70.00	15.00
	b) Medium term		..	..	..	5.00	30.00	5.00
	c) Long term		..	..	..	..	5.00	..
	Value of consumer items distributed		..	500.00	535.00	250.00	1000.00	250.00
	Value of agricultural inputs distributed		..	10.00	38.00	12.00	96.00	15.00
32	<b>CONSUMER COOPERATIVES</b>							
	No. of Societies		Nos.	50	29	8	20	..
	No. of Viable Societies		..	..	..	..	..	..
	Membership		..	3146	2878	300	3000	500
	Membership belonging to weaker Section		..	1887	1295	180	1800	275
	Value of consumer items handled		Rs. Lakhs	500.00	458.60	250.00	2000.00	300.00
33.	<b>PROCESSING COOPERATIVES</b>							
	No. of Societies		Nos.	..	..	1	5	1
	Membership		Nos.	..	..	15	200	20
	Business turnover		Rs. Lakhs	..	..	1.00	15.00	3.00
34.	<b>STORAGE COOPERATIVES</b>							
	Total No. of shop-cum-godown building	1890	Nos.	..	7	2	25	2
	Capacity created		M.T.	4000	400	100	2000	100

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

## 35. TRAINING AND EDUCATION

Training centres to be established	Nos.	..	..	..	2	1
Training of Officers	„	..	6	5	25	5
Field Officer (Inspector/Auditors)	„	..	21	9	30	6
Office bearers of the Societies	„	..	138	40	125	20
Member/Farmers Education Programme	„	..	222	50	1000	250
Organisation of workshop/seminar etc.	„	..	5	1	10	1
Distribution of printed materials	„	..	..	..	0.50	0.10

## 36. OTHER COOPERATIVES

Weavers	„	..	1	..	8	2
Blacksmithy	„	..	1	..	6	1
Transport	„	..	..	..	4	1
Floriculture	„	..	1	1	7	1
Others	„	..	2	..	5	1
Total Membership	„	500	90	35	600	2

## 37. DAIRY COOPERATIVES

No. of Primary milk Societies	„	40	11	17	50	10
Membership	„	3500	886	400	3000	300
Membership belonging to weaker section	„	2100	531	240	1800	180
Quantity of milk collection (Lakh litres)	„	91.25	65.60	16.50	128.00	18.25
Quantity of milk sales	„	164.25	114.87	22.00	192.00	24.00
Construction of cattle feed godown	Nos.	..	..	..	2	..
Milching cow distribution	„	..	50	50	500	50
Construction of milk collection cum-testing sheds	„	10	8	2	50	10
Establishment of milk chilling plant LPD.	„	..	..	..	2	10

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Training of Farmers		Nos.	..	150	50	700	100
	Training of Societies personnel		„	..	35	15	100	20
	Cattlefeed distribution by Sikkim Coop. Milk Union		Rs. lakhs	..	31.52	12.60	50.40	10.00
38.	MARKETING OF AGRICULTURAL PRODUCE							
	By State Marketing Federation and Multipurpose Coop. Societies		„	400.00	76.19	55.00	650.00	100.00
39.	Procurement and distribution of fertiliser by SIMFED		„	10.00	51.10	75.00	375.00	75.00
40.	Cattlefeed procurement and distribution by SIMFED		„	..	14.90	5.00	40.00	7.00
41.	WHOLESALE BUSINESS BY SIMFED							
	Rapeseed Oil		„	..	50.53	20.00	132.00	26.00
	Palm Oil		„	..	30.62	..	140.00	30.00
	M. Oil		„	..	17.34	12.00	75.00	15.00
	Pulses		„	..	3.59	2.00	15.00	3.00



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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
<b>RURAL DEVELOPMENT</b>									
42	<b>IRDP</b>								
	i)	Beneficiaries identified	1510	Nos. Families	20000	11,000	2,000	12,500	2,500
	ii)	Beneficiaries assisted	1520	,,	24000	11,000	2,000	12,500	2,500
	iii)	Beneficiaries SC/ST	1530	,,	7200	—	—	—	—
	iv)	Youths Trained	1550	Nos.	1600	867	160	1,330	270
43	<b>DWCRA</b>								
		Groups organised	1590	,,	70	66	10	80	10
	<b>NREP</b>								
	i)	Employment generated	1600	Lac. Mandays	10	14.61	Programme discontinued	—	—
	ii)	Jawhar Rojgar Yojana Community Development & Panchayat Ghar	—	,,	—	—	5.30	30.00	6.00
	i)	Panchayat Ghar	—	No.	7	5	1	—	—
	ii)	Zilla Parisad Bhavan	—	No.	2	1	1	2	1
	iii)	State Panchayat Bhavan	—	No.	—	—	—	1	—
44	<b>RURAL WATER SUPPLY (MNP)</b>		3810	No. of villages	337	193	58 PC to FC 70 110 Aug.	20 PC to FC 30 Aug.	

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Population covered	3820	No. lakhs	0.76	0.73	0.24	0.77	0.23
	Rural Bridges	—	No.	368	239	65	SED 20 RCC 40 Steel 100	4 10 15
45	RURAL SANITATION							
	i) No of household Latrines	—	No.	7480	5903	2620	15000	2500
	ii) Institutional/Community Latrines	—	No.	—	—	—	150	20
	iii) Soakage pits	—	No.	Nil	Nil	Nil	15000	2500
	vi) Bathing cubicles	—	No.	—	—	—	100	15
46	LAND REFORMS							
	Circles	—	No.	54	54	—	1	1
	Maintenance of Land Records	—	No. of villages	411	411	—	—	—
47	MINOR IRRIGATION							
	1. Surface Potential	1940	'000 Hac.	8.00	5.313	1.450	6.50	1.00
	2. Surface utilisation	1950	,,	6.00	7.621	1.250	6.00	0.90
48	FLOOD CONTROL							
	1. Length of Embankment	1980	Km.	5.00	2.61	0.75	3.00	0.50

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

## POWER

## 49 GENERATION INSTALLED CAPACITY

1.	Lower Lagyap Hydel project	—	MW	12.00	—	—	—	—
2.	Jali Power House	—	"	2.50	—	—	Cumulative as on- 31.3.1985	
3.	Rimbi Power House	—	"	0.60	—	—	—	—
4.	Diesel Power House, Gangtok	—	"	1.70	—	—	—	—
5.	Diesel Power House, Ranipool	—	"	1.00	—	—	—	—
6.	Rongnichu Hydel, Stage-II	—	"	2.50	2.50	—	—	—
7.	Rimbi Hydel, Stage-II	—	"	1.00	1.00	—	—	—
8.	Mayongchu Hydel, project	—	"	—	—	—	4.00	4.00
9.	Upper Rongnichu Hydel Project	—	"	—	—	—	8.00	—
10.	Kalez Hydel Scheme	—	"	—	—	—	2.00	—
11.	Lachung Micro Hydel Scheme	—	"	—	—	—	0.20	0.20
12.	Purey Khola Hydel Scheme	—	"	—	—	—	0.20	—
(i)	Total Installed Capacity	2010	MW	21.30	3.50	—	14.40	4.20
(ii)	Electricity Generated	2020	MKWH	200.50	139.45	41.05	300.00	45.00
(iii)	Electricity sold	2030	"	132.20	102.73	130.75	225.00	35.00

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>50 TRANSMISSION WORKS</b>								
1.	66 KV. Transmi- ssion Lines	—	Km.	50	—	50	80.00	—
2.	132 KV Transmission	—	”	—	—	—	80	—
3.	Lines	—	”	—	—	—	80	—
4.	66/11 KV Sub-station	—	MV	15.00	—	15	45.20	—
	132/66KV sub-station	—	MVA	—	—	—	37.50	—
<b>51 DISTRIBUTION</b>								
1.	11 KV Lines	—	Km.	310	230	40	250	50
2.	11/0.43 KV Sub-station.	—	KVA	8500	6700	800	7000	1200
3.	L.T. Lines	—	Km.	320	240	45	300	40
4.	System Improvement Schemes	—	Town/Bazar	6	5	1	10	2
<b>52 RURAL ELECTRIFICATION</b>								
1.	Villages Electrified	—	No.	167	144	35	37	37
2.	Inten- sification works	—	”	70	65	15	245	45
3.	System Improvement works							
	(a) 66 KV Lines	—	Km.	—	—	—	45	—
	(b) 66/11 KV Sub-Station	—	MVA	—	—	—	5	—
<b>53 NRSE</b>								
(a)	Bio-gas		Nos.	185	230	50	1000	150
(b)	Bio-mass		Hec.	200	80	100	250	50
(c)	Improved Chulla		Nos.	18,000	11,445	4000	20,000	5000
(d)	Solar Thermal Energy		Nos.	167	62*	30	120	35
(e)	Solar Photo- voltaic		Nos.	113	70	20	175	25
(f)	Wind Energy		Nos.	10	4	02	5	—

\* Includes 20 Nos. of Solar Cooker.

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(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

**INDUSTRIES****SMALL SCALE INDUSTRIES**

Units Functioning	..	Nos.	300	157	30	300	50
Production (Amount)	..	Rs. in lacs	1000	950	250	2000	350
Persons Employed	..	Nos.	6000	2580	405	6000	950

**INDUSTRIAL ESTATE**

Area Functioning	..	Nos.	4	2	2	3	2
Production (Amount)	..	Rs. in lakhs	120	380	60	650	150
No. of Units	..	Nos.	10	11	4	50	10
Employment	..	Nos.	50	100	40	600	50

**DISTRICT INDUSTRIES CENTRE****East**

No. of units assisted	..	Nos.	100	70	20	150	20
No. of persons employed	..	Nos.	2000	1300	400	3500	500
Production (Amount)	..	Rs. in lakhs	1000	550	250	1000	200
No. of Artisans assisted	..	Nos.	150	75	25	100	20
Entrepreneurship Development Programme	..	Nos.	100	40	25	100	20

**North**

No. of Units assisted	..	Nos.	25	15	7	50	10
No. of persons employed	..	Nos.	200	155	30	500	50
Production (Amount)	..	Rs. in lacs	200	30	10	250	40
No. of Artisans Assisted	..	Nos.	100	110	40	250	50
Entrepreneurship Development Programmes	..	Nos.	100	75	25	100	20

**South**

No of units assisted	..	Nos.	50	25	15	60	12
No. of persons employed	..	Nos.	700	700	100	1200	280
Production (Amount)	..	Rs. in lacs	200	150	70	550	70
No. of artisans assisted	..	Nos.	100	40	20	70	20
Entrepreneurship Development Programmes	..	Nos.	75	80	20	100	20

**West**

No. of units assisted	..	Nos.	25	20	5	40	8
No. of persons employed	..	Nos.	300	250	50	800	120
Production (Amount)	..	Rs. in lacs	150	100	30	200	40
No. of artisans assisted	..	Nos.	100	60	20	30	25
Entrepreneurship Development Programme	..	Nos.	100	70	30	100	20

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
57.	<b>KHADI</b>							
	Cotton		— Production (Rs. lakhs)	25.00	13.00	7.00	50.00	7.50
			Employment (Nos)	650	320	75	1200	100
	Woolen		— Production (Rs. lakhs)	25.00	6.00	5.00	50.00	7.50
			Employment (Nos.)	245	120	25	400	50
	Total Target		— Production	50.00	19.00	12.00	100.00	15.00
	Total Employment		— (Rs lakhs)	895	440	100	1600	150
58.	<b>VILLAGE INDUSTRIES</b>							
	Handmade Paper Industry		— Production (Rs. Lakhs)	25.00	2.00	3.00	35.00	5.00
	Fibre		— Production	1.00	—	0.50	7.00	0.75
	Leather		— „	10.00	—	0.50	5.00	1.25
	Cane & Bamboo		— „	60.00	18.00	5.00	100.00	10.00
	Beekeeping		— „	10.00	9.00	3.00	20.00	4.00
	Processing of Cereals & Pulses		— „	30.00	12.00	4.00	45.00	5.00
	Carpentry & Blacksmithy		— „	40.00	4.00	5.00	25.00	5.00
	Gobar Gas Unit		— No.	110	6	10	100	—
	Fruit Preservation Factory		— Production	3.00	—	—	—	—
	Village Oil		— „	5.00	—	1.00	10.00	2.00
	Lime Industry		— „	—	—	1.00	10.00	2.00
	N.E.O. Soap		— Production	—	—	2.00	25.00	—
59.	<b>GOVERNMENT INSTITUTE OF COTTAGE INDUSTRIES</b>							
	(a) Training Centre		— Nos.	8	8	8	13	10
	(b) Trainees (Gangtok)		— „	250	195	154	250	50
	(c) Paid Workers		— „	175	175	200	300	325
	(d) FLO Beneficiaries		— „	690	690	800	1000	850
	(e) Production of Handicrafts		— Rs. in lakhs	75.00	68.00	25.00	150.00	25.00
	(f) Sale		— „	80.00	48.00	20.00	100.00	20.00
	(g) F.L.O. Units		— Nos.	10	10	10	15	11
	(h) Trainees (Branch Centres )		— „	300	175	262	1500	360

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>ROAD TRANSPORT</b>								
60	<b>ROAD TRANSPORT</b>							
	<b>i) Augmentation of fleet</b>							
	a) Buses	—	Nos.	—	132	20	60	10
	b) Trucks & Tankers	—	,,	—	200	10	70	12
	<b>ii) Replacement</b>							
	a) Buses	—	,,	—	N.A.	15	89	29
	b) Trucks & Tankers	—	,,	—	—	8	131	67
	c) No. of passengers	—	No. in lakhs	6.5	10.00	12.00	90.00	23.00
	d) Goods Tonnage lifted	—	Tonne/Lakhs	1.5	2.00	2.30	18.90	2.69
<b>SIKKIM PUBLIC WORKS DEPARTMENT (ROADS AND BRIDGES)</b>								
61	<b>1) ROAD STATE HIGHWAY</b>							
	a) Surfaced	2360	Kms.	217.00	217.00	217.00	217.00	217.00
	b) Unsurfaced	2370	Kms.	8.00	8.00	8.00	8.00	8.00
	c) Total	2380	Kms.	225.00	225.00	225.00	225.00	225.00
62	<b>2) MAJOR DISTRICT ROAD</b>							
	a) Surfaced	2390	Kms.	296.00	253.00	263.00	327.00	277.00
	b) Unsurfaced	2400	Kms.	148.00	193.00	183.00	119.00	169.00
	Total	2410	44	444.00	446.00	446.00	446.00	446.00
63	<b>3) OTHER DISTRICT ROAD</b>							
	a) Surfaced	2420	Kms.	247.00	114.00	145.00	397.00	192.00
	b) Unsurfaced	2430	Kms.	539.00	657.00	640.00	497.00	611.00
	Total	2440	,,	786.00	771.00	785.00	894.00	803.00
	Total Road	—	,,	1455.00	1442.00	1456.00	1565.00	1474.00

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>TOURISM</b>								
64	TOURIST ARRIVALS							
	a) International	2520	No.	10,000	7476	10,000	25,000	10,000
	b) Domestic	2530	,,	50,000	69090	80,000	1,50,000	70,000
65	TOURIST ACCOMODATION							
	a) Rooms	2540	,,	800	450	1,000	2,000	450
	b) Beds	2550	,,	1500	1,200	1,750	3,500	1,200
66	FOOD & CIVIL SUPPLIES							
	Construction of Godown	—	M.T.	1500	1000	500	5500	1000
67	ELEMENTARY EDUCATION							
	Classes I-V (Age-group 6-11)							
	<b>i) Total Enrolment</b>							
	a) Boys	2560	Nos	35,000	34373	38500	42,500	39,500
	b) Girls	2570	,,	26,000	28544	31500	37,500	32,500
	c) Total	2580	,,	61,000	62917	70000	80,000	72,000
	<b>ii) Percentage to Age-group</b>							
	a) Boys	2590	,,	121.11	128.26	138.49	128.40	136.68
	b) Girls	2600	,,	91.87	108.95	115.81	115.38	114.84
	c) Total	2610	,,	106.83	118.71	127.27	121.95	126.09
	<b>iii) Enrolment of Scheduled Caste</b>							
	a) Boys	2620	,,	1,9000	2025	2200	2,500	2,250
	b) Girls	2630	,,	1,5000	1740	1800	2,100	1,850
	c) Total	2640	,,	3,400	3765	4000	4,600	4,100
	<b>iv) Percentage to Age group</b>							
	a) Boys	2650	,,	118.75	126.17	129.41	126.26	130.05
	b) Girls	2660	,,	87.72	118.77	120.00	116.02	117.09
	c) Total	2670	,,	102.72	122.64	125.00	121.37	123.87



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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

## v) Enrolment of Scheduled Tribe

a)	Boys	2680	,,	7,600	7378	8300	9,500	8,500
b)	Girls	2690	,,	6,200	6218	6800	8,000	7,000
c)	Total	2700	,,	13,800	13596	15100	17,500	15,500

## vi) Percentage of Age group

a)	Boys	2710	,,	118.20	114.92	124.87	119.95	122.48
b)	Girls	2720	,,	89.34	104.33	110.57	108.99	108.86
c)	Total	2730	,,	103.22	109.82	117.97	114.68	115.93

## Classes VI-VIII (11 to 14)

## i) Total Enrolment

a)	Boys	2680	,,	11,000	8,356	8,800	12,000	9,600
b)	Girls	2690	,,	7,000	6,870	7,200	10,200	7,900
c)	Total	2700	,,	18,000	15,226	16,000	22,000	17,500

## ii) Percentage of Age-group

a)	Boys	2710	,,	68.32	55.71	56.41	65.57	59.68
b)	Girls	2720	,,	46.36	49.07	49.07	58.14	52.32
c)	Total	2730	,,	57.69	52.50	52.98	61.97	56.09

## iii) Enrolment of Scheduled Caste

a)	Boys	2800	,,	600	362	380	600	425
b)	Girls	2810	,,	400	308	320	500	350
c)	Total	2820	,,	1,000	670	700	1,100	775

## iv) Percentage to Age-group

a)	Boys	2830	,,	67.42	43.35	44.19	56.07	45.21
b)	Girls	2840	,,	43.73	36.23	36.16	51.02	40.70
c)	Total	2850	,,	52.49	39.76	40.11	53.66	43.05

## v) Enrolment of Scheduled Tribes

a)	Boys	2860	,,	2,600	1,752	1,800	2,700	2,150
b)	Girls	2870	,,	1,600	1,689	1,700	2,300	1,800
c)	Total	2880	,,	4,200	3,441	3,500	5,000	3,950

## vi) Percentage to Age-group

a)	Boys	2890	,,	74.07	52.61	52.17	62.94	57.03
b)	Girls	2900	,,	43.01	48.82	47.35	57.93	51.57
c)	Total	2910	,,	58.09	50.68	49.72	68.53	54.41

DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN 1990-91  
PHYSICAL TARGETS AND ACHIEVEMENTS

Statement GN-3

Sl. No.	Item	Code No.	Unit	Seventh Plan 1985-90 Target	Achievements 1985-86 to 1988-89	Anticipated achievements 1989-90	Eighth proposed targets 1990-95	Annual Plan 1990-91 Proposed target	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
68.	<b>SECONDARY EDUCATION</b>								
	<b>i. Classes IX-X</b>								
	a) Boys	2920	Nos.	5,400	3,132	3,150	6,650	3,800	
	b) Girls	2930	,,	3,600	2,007	2,050	4,800	2,600	
	c) Total	2940	,,	9,000	5,139	5,200	11,450	6,400	
11.	<b>Classes XI-XII</b>								
	a) Boys	2950	,,	1,600	1057	1050	3,600	1,700	
	b) Girls	2960	,,	900	433	450	2,000	700	
	c) Total	2970	,,	2,500	1490	1500	5,600	2,400	
69	<b>ENROLMENT IN VOCATIONAL</b>								
	<b>i. Post Elementary Stage</b>								
	a) Boys	2980	,,	..	160	250	300	150	
	b) Girls	2990	,,	..	85	90	200	80	
	<b>2. Post High School Stage</b>								
	a) Total	3000	,,	150	16	75	360	60	
	b) Girls	3010	,,	50	16	30	120	25	
70	<b>ENROLMENT IN NON-FORMAL EDUCATION</b>								
	<b>i) Age-Group 6-11</b>								
	a) Total	3020	,,	6,000	250	300	4,000	800	
	b) Girls	3030	,,	2,400	100	125	1,600	320	
	<b>ii) Age Group 11-13</b>								
	a) Total	3040	,,	9,000	500	750	6,000	1,000	
	b) Girls	3050	,,	2,700	200	300	2,400	400	
71	<b>ADULT EDUCATION</b>								
	<b>a) Number of Participants</b>								
		3060	,,	75,000	5559	7,000	40,000	7200	
	<b>b) Number of Centres</b>								
	<b>i) Central Programme</b>								
		3070	,,	800	306	400	650	550	
	<b>ii) State Programme</b>								
		3080	,,	200	54	100	100	100	
72	<b>TEACHERS</b>								
	<b>i) Primary Stage (Classes I-V)</b>								
		3110	,,	4,830	4049	4,100	4369	4189	
	<b>ii) Middle Stage (Class VI-VIII)</b>								
		3120	,,	1,360	949	960	1199	1009	
	<b>iii) Secondary Stage (Classes IX-X)</b>								
		3130	,,	345	584	600	724	659	
	<b>iv) Senior Secondary Stage</b>								
		3140	,,	240	157	170	211	211	
<b>Total</b>					6,775	5,738	5,830	6,503	6068

DRAFT EIGHTH FIVE YEAR PLAN (1990-95) & ANNUAL PLAN 1990-91  
PHYSICAL TARGETS AND ACHIEVEMENTS

Statement GN --- 3

Sl. No.	Item	Code No	Unit	Seventh Plan (1985-90) Target	Achievements 1985-86 to 1988-89	Anticipated achievements 1989-90	Eighth plan proposed targets 1990-95	Annual Plan 1990-91 proposed target
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

**MEDICAL AND PUBLIC HEALTH**

## 73 HEALTH &amp; FAMILY WELFARE

**Rural Health**

a) Sub-Centres	3240	Nos	50	45	5	10	2
b) PHCs	3250	,,	2	2	—	3	1
c) Subsidiary Health Centre	3260	,,	—	—	—	—	—
d) Community Health Centre	3270	,,	4	2	2	2	1

## 74 FAMILY WELFARE

a) Rural F. W. Centre	3520	,,	2	2	—	—	—
b) Post Partum Centre	3560	,,	1	—	—	—	—

## 75 FAMILY WELFARE

a) Rural F.W. Centre	3520	,,	2	2	—	—	—
b) F.W. Programmes	—	,,	—	—	—	—	—
i) Sterilisation	—	,,	4900	3729	1100	5400	1000
ii) I.U.D	—	,,	7300	4576	1700	7000	1300
iii) Oral Pills	—	,,	9700	4472	2200	3800	1300
iv) C.C. users	—	,,	2700	2086	600	2400	800

## 76 PREVENTION &amp; CONTROL

a) **T.B. Programme**

i) No. of Cases detected	—	No	10,000	5853	1200	6000	1200
ii) No. of Cases treated	—	,,	—	5853	1200	6000	1200
iii) Sputum Examination	—	,,	50,000	2306	4500	22,500	4500

b) **Leprosy Eradication**

i) New case detection	—	,,	500	229	100	500	100
ii) Cases put under treatment	—	,,	500	229	100	500	100
iii) Cases discharged	—	,,	100	74	30	150	30

c) **Control of Blindness**

Cataract operation	—	No	500	357	100	500	100
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DRAFT EIGHTH FIVE YEAR PLAN (1990-95) & ANNUAL PLAN 1990-91  
PHYSICAL TARGETS AND ACHIEVEMENTS

Statement GN - 3

Sl. No.	Item	Code No.	Unit	Seventh Plan (1985-90) Target	Achievements 1985-86 to 1988-89	Anticipated achievements 1989-90	Eighth plan proposed targets 1990-95	Annual Plan 1990-91 proposed target
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>77 WATER SUPPLY &amp; HOUSING</b>								
<b>URBAN DEVELOPMENT</b>								
	Environmental Improvement of Schemes	—	no.	20,000	20,300	5000	16700	3340
	Rural Water Supply Schemes	3810	No. of Villages	338	193	70	58 PC to FC 110 Aug.	20 PC to FC 30 Aug.
	Population covered	3820	No. Lakhs	0.76	0.73	0.24	0.77	0.23
	Rural sanitation households Latrine	—	No.	7480	5903	2620	15000	2500
	Institutional	—	No.	—	—	—	150	20
	Soakage Pits	—	"	—	—	—	15000	2500
	Bathing cubicles	—	"	—	—	—	100	15
	Social Housing	—	No. of families	500	605	200	400	100
	State Housing Boards	—	No. of Board	1	1	—	—	—
	Construction (implementation of Master Plan/Others Bazar)	—	No.	—	—	—	12	—
	I. D. S. M. T.	—	No. of Towns	2	2	2	4	2

DRAFT EIGHTH FIVE YEAR PLAN (1990-95) & ANNUAL PLAN 1990-91  
PHYSICAL TARGETS AND ACHIEVEMENTS

Statement GN-3

Code No.	Item	Code No.	Unit	Seventh Plan 1985-90 Target	Achievements- 1985-86 to 1988-89	Anticipated achievements 19-89-90	Eighth Plan proposed targets 1990-95	Annual Plan 1990-91 proposed target
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>SCHEDULED CASTE &amp; SCHEDULED TRIBE</b>								
78	<b>Scheduled Tribes</b>							
	i) Economic Grant to families	—	No	210	138	50	280	52
	ii) Education (Scholarship to students)	—	"	5800	2937	1100	20,146	3300
	iii) Vocational facility (Centres)	—	"	5	5	—	—	—
79	<b>b) SCHEDULED TRIBES</b>							
	i) Economics grant to families	—	"	194	89	100	560	104
	ii) Education (Scholarship to students)	—	"	7650	3596	1576	29,911	4,934
	iii) Tribal Area Programme (Villages to be taken up)	—	"	—	—	—	3	1
	No. of households covered	—	"	—	—	—	209	55
80	<b>NUTRITION</b>							
	<b>a) Beneficiaries S.N.P. in I.C.D.S.</b>							
	i) Children 0-6 years	—	No.	55,000	68,480	21,771		
	ii) Women	—	"	20,000	17,034	4,149	222,184	41,858
	<b>b) Beneficiaries under S.N.P.</b>							
	i) Outside ICDS (Creches & BAP)	—	"	65,000	4,679	1,631		
	ii) Pre-primary School Children 3-6 years	—	"	—	14,235	14,774		
	iii) Women Beneficiaries under M.D.M. Programme	—	"	350,000	223,291	52,466	276,378	52,020

## DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN 1990-91

MINIMUM NEEDS PROGRAMME: OUTLAY AND EXPENDITURE Statement GN-4  
(Rs. in lakhs)

Sl No	Name of Scheme/ Project	7th Plan outlay (1985-90)	Expendi- ture 1985-86 to 88-89	Outlay 1989-90	Proposed outlay Eighth Plan 1990-95	Of which capital content	Annual plan 1990-91 proposed outlay	Of which capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Rural Electrifica- tion	1079.00	1346.78	220.00	2022.00	2022.00	400.00	400.00
2.	Rural Roads & Bridges	1470.00	1156.44	419.50	2950.00	2950.00	581.00	581.00
3.	Elementary Education	1274.00	1617.80	538.00	2550.00	775.00	425.00	112.00
4.	Adult Education	50.00	12.45	10.00	50.00	..	8.00	..
5.	Rural Health	200.00	198.50	75.00	577.50	480.00	129.00	123.00
6.	Rural Water Supply	850.00	1060.57	360.00	1200.00	1200.00	350.00	350.00
7.	Rural Sanitation	..	..	..	135.00	135.00	35.00	35.00
8.	Rural House Sites Cum-construction Scheme	60.00	35.41	10.00	100.00	100.00	15.00	15.00
9.	Environmental Improvement of Slums	20.00	24.15	6.00	50.00	..	10.00	..
10.	Nutrition	270.00	170.00	42.75	604.00	..	91.00	..
11.	Public Distribution	55.00	38.38	14.50	56.00	..	8.50	..
<b>Total</b>		<b>5328.00</b>	<b>5660.48</b>	<b>1695.75</b>	<b>10294.50</b>	<b>7962.00</b>	<b>2052.50</b>	<b>1616.00</b>

## DRAFT EIGHTH FIVE YEAR PLAN 1990-95

## PHYSICAL TARGETS AND ACHIEVEMENTS: MINIMUM NEEDS PROGRAMME. Statement : GN - 5

Sl. No.	Item	Unit	Seventh Plan (1985-90) Target	Achievements 1985-86 to 1988-89	Anticipated Achievements 1989-90	Eighth plan proposed targets 1990-95	Annual plan 1990-91 proposed target
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	RURAL ELECTRIFICATION						
	Village Electrified	No.	167	144	35	37	37
2.	i) Rural Roads						
	Villages covered with population of:						
	a) 500 & above	No.	149	147	147	166	165
	b) 200 - 500	"	108	107	107	126	126
	c) below 200	"	32	30	32	62	62
	Total:	"	289	284	286	354	353
	ii) Rural Bridges	"	368	239	65	160	29
3.	RURAL SANITATION						
	i) House hold latrines	"	7480	5903	2620	13000	2500
	ii) Institutional latrine	"	-	-	-	150	20
	iii) Soakage pits	"	-	-	-	13000	2500
	iv) Bathing articles	"	-	-	-	100	15
4.	ELEMENTARY EDUCATION						
	a) Classes I-IV (Age group 6-11, years) enrolment	Nos.	61000	62917	70000	80000	72000
	b) Classes VI-VIII (Age group 11-14 years) enrolment	"	18000	15226	16000	22000	17500
5.	ADULT EDUCATION						
	a) No. of participants (Age group 15-35 years)	"	75000	5559	7000	40000	7200
	b) No. of Centres						
	i) Centre	"	800	306	400	650	550
	ii) State	"	200	54	100	100	100
6.	RURAL HEALTH						
	a) Sub-Centres	No.	50	45	5	10	2
	b) PHCS	"	2	2	-	3	1
	c) Community health centres	"	4	2	2	2	1
7.	RURAL FUEL WOOD PLANTATION						
		Hac.	-	5200	1270	10000	1600
8.	RURAL WATER SUPPLY						
	i) State Sector Village covered by						
	i) Piped water supply	"	338	193	70	58 Pc to 110 Aug.	20 Pc to 30 Aug.
	ii) Population covered	'000 Nos	0.76	0.73	0.24	0.77	0.27

## DRAFT EIGHTH FIVE YEAR PLAN 1990-95

## PHYSICAL TARGETS AND ACHIEVEMENTS: MINIMUM NEEDS PROGRAMME Statement: GN-5

Sl. No.	item	Unit	Seventh Plan (1985-90) Target	Achievements 1985-86 to 1988-89	Anticipated Achievement 1989-90	Eighth plan Proposed Targets 1990-95	Annual plan 1990-91 proposed Target
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
9.	NUTRITION						
	a) Beneficiaries under special Nutrition programme in ICDS						
	Child 0-6 years	'000 Nos	55000	68480	21771		
	Women	'000 ,,	20000	17034	4149		
	b) Beneficiaries under special nutrition programme outside						
	ICDS Child 0-6 years	'000 Nos	65000	4679	1631		
	Women	,, ,,	"	14235	14774	222184	41858
	c) Beneficiaries under middle meal programme						
		No.	356000	223291	52466	276378	52020
10.	ENVIRONMENT						
	Improvement of slums						
	a) Cities covered	,,	39	24	6	40	7
	b) Persons benefited	,,	20000	20300	5000	16700	3340
11.	FAIR PRICE SHOPS						
		,,	255	143	69	150	30



DRAFT EIGHTH FIVE YEAR PLAN (1990 - 95) AND ANNUAL PLAN - 1990 - 91  
CENTRALLY SPONSORED SCHEMES: OUTLAY AND EXPENDITURE Statement GN-6

Sl. No.	Name of the Scheme	Pattern of Sharing Expenditure	Seventh Plan Outlay 1985-90	Expenditure 1985-86 to 1988-89	Outlay 1989-90	Eighth Plan 1990-95 proposed outlay	Annual Plan 1990-91 proposed outlay
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>A. AGRICULTURE</b>							
1.	Strengthening of State Seed Testing Laboratory & Seed Certification	100%	8.00	—	—	—	—
2.	National Oil Seed Development Programme	50:50	15.00	12.87	4.00	30.00	5.00
3.	Intensive Pulses Development Programme	50:50	15.00	4.86	0.40	10.00	2.00
4.	P.MS Programme for small & Marginal Farmers	50:50	40.00	23.30	10.00	50.00	10.00
5.	ICAR Maize Programme	75:25	5.00	3.08	—	—	—
6.	Agricultural Census Programme	100%	15.00	11.60	6.00	50.00	8.00
7.	National Grid of Rural Godowns	50:50	10.00	15.38	8.00	60.00	12.00
8.	Minikit Programme of Rice	100%	20.00	1.91	0.14	1.50	0.25
9.	Demonstration of Intensive Cultivation in Maize in SC/ST areas	100%	—	0.74	0.41	5.00	0.75
10.	Special Minikit Demonstration Programme of Millets & Maize	100%	—	0.51	0.41	5.00	0.75
11.	Wheat Minikits	100%	—	0.45	0.45	4.00	0.60
12.	Wheat Adoptive Trials	100%	—	—	—	0.50	0.10
13.	Oilseed Production Thurst Project	100%	—	4.50	4.50	30.00	5.00
14.	Apple Scrab Control (ICAR)	50:50	—	—	1.55	15.00	2.00
15.	Opening of Additional Retail Outlets	100%	—	—	4.80	25.00	5.00
16.	Control of Shifting Cultivation	—	—	—	—	20.00	4.00
17.	National Project on Development of Fertiliser use in low consumption Areas	33.5%	—	8.89	6.19	50.00	8.00
18.	National Watershed Development for Dryland Agriculture	—	—	—	—	100.00	20.00
19.	Crop estimation of Surveys of fruits, vegetables & Minor crops	—	—	—	—	10.00	2.00
20.	Comprehensive Scheme for studying cost of cultivation of Principal Crops	—	—	—	—	20.00	4.00
21.	Timely reporting of estimates of Area and production of Principal crops	—	—	—	—	10.00	2.00
22.	Transport subsidies in seeds	—	—	—	—	15.00	3.00
23.	Buffer stock of seeds	—	—	—	—	20.00	3.00
<b>B. ANIMAL HUSBANDRY</b>							
1.	Control of Food & Mouth Disease	50:50	5.50	3.97	1.13	10.00	7.50
2.	Rinderpest Surveillance	50:50	5.50	3.42	1.00	10.00	1.00
3.	Animal Disease Surveillance	50:50	2.00	1.60	0.50	4.00	0.50
4.	Control of Pullorum Disease	50:50	3.00	1.90	0.35	2.00	0.25

DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN-1990-91  
CENTRALLY SPONSORED SCHEMES: OUTLAY AND EXPENDITURE

Statement GN-6

Sl. No.	Name of the Scheme	Pattern of Sharing Expenditure	Seventh Plan Outlay 1985-90	Expenditure 1985-86 to 88-89	Outlay 1989-90	Eighth Plan 1990-95 proposed outlay	Annual Plan 1990-91 proposed outlay
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
5.	Special Livestock production programme	50:50	—	—	—	—	—
6.	Livestock Survey and Investigation	50:50	1.40	—	1.90	2.00	0.50
7.	State Veterinary Council	50:50	1.40	—	—	—	—
8.	Cross- Breeding of Cattle with exotic dairy breeds in non-operation flood areas	100%	23.77	30.04	—	40.00	5.00
9.	Equine breeding	50:50	—	0.50	0.50	20.00	5.00
10.	Rabies Control	50:50	—	3.00	3.00	1.00	2.00
11.	Yak breeding	50:50	—	0.50	1.00	20.00	5.00
<b>C. SOIL CONSERVATION</b>							
1.	Soil Conservation in the Catchment of River valley Teesta	100%	300.00	177.00	60.00	320.00	60.00
2.	Integrated Soil and Water Conservation in Himalayas	100%	400.00	167.65	60.00	405.00	60.00
<b>D. FORESTRY AND WILDLIFE</b>							
1.	Social Forestry including Rural Fuel Wood Plantation	50:50	307.00	232.70	70.00	350.00	55.00
2.	Area Oriented Fuelwood & Fodder Project	50:50	—	—	—	175.00	27.00
3.	Establishment of Silvipastoral	50:50	—	—	—	50.00	8.00
4.	Management of Protected areas & habitat restoration	100%	—	—	—	250.00	60.00
5.	Minor Forest Produce	100%	—	—	—	100.00	15.00
<b>E. RURAL DEVELOPMENT</b>							
1.	ARWSS	50:50	850.00	1060.57	360.00	1200.00	350.00
2.	NREP	50:50	90.00	98.75	35.00	—	—
3.	IRDP	50:50	100.00	81.40	20.00	100.00	20.00
4.	RLEGP	100%	—	204.73	—	—	—
5.	JAWHAR ROGHAR YOJANA	80:20	—	—	200.00	1000.00	200.00
6.	State Institute of Rural Education	100%	—	84.30	—	—	—
7.	Central Rural Sanitation Programme	100%	—	40.60	20.00	50.00	10.00
8.	Technology Mission of Drinking Water	100%	—	150.00	50.00	100.00	20.00
<b>F. INDUSTRIES</b>							
1.	D. I. C. Jorethang	50:50	..	22.01	10.00	40.00	6.00
2.	D. I. C. Gangtok	50:50	..	17.08	10.00	40.00	6.00
3.	Information & Publicity	50:50	..	5.50	2.00	15.00	2.50
<b>G. URBAN DEVELOPMENT</b>							
1.	Integrated Urban Development	50:50	10.00	49.16	10.00	150.00	25.00
<b>H. MEDICAL &amp; PUBLIC HEALTH</b>							
1.	Family welfare	100 %	..	247.09	86.68	460.00	90.00

## DRAFT EIGHTH FIVE YEAR PLAN ( 1990-95 ) AND ANNUAL PLAN 1990-91

## CENTRALLY SPONSORED SCHEMES: OUTLAY &amp; EXPENDITURE Statement GN-6

(Rs. in lakhs )

Sl. No.	Name of the Scheme	Pattern of sharing Expenditure	Seventh Plan 1985-90 outlay	Actual expenditure 1985-86 to 88-89	Annual Plan 1989-90 Approved outlay	Eighth Five Year Plan (1990-95) Proposed Outlay	Annual Plan 1990-91 Proposed outlay
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2.	National Malaria Eradication programme	50:00	..	111.19	51.00	125.00	25.00
3.	National Leprosy Control Programme	100%	..	70.69	14.00	90.00	18.00
4.	National Tuberculosis Control Programme	50:50	..	10.88	7.00	25.00	5.00
5.	Prevention of Control of Blindness	100%	..	6.44	4.62	20.00	4.00
6.	Goitre Control Programme	100%	..	2.15	1.60	25.00	5.00
7.	I. C. D. S.	100%	..	123.24	44.20	125.00	50.00
<b>I.</b>	<b>SOCIAL WELFARE</b>						
1.	Child Welfare	50:50	9.00	3.97	1.50	9.00	1.50
2.	Construction of W. W. Hostel	75:25	16.00	11.40	1.00	30.00	5.00
3.	Construction of Destitute House	50:50	9.00	4.21	..	..	..
<b>J.</b>	<b>TOURISM</b>						
1.	Youth Hostel	100%	31.49	30.00	10.00	30.00	5.00
2.	Equipment for trekking	100%	3.85	3.88	..	..	..
3.	Trekking Huts	100%	15.85	33.45	..	20.00	5.00
<b>K.</b>	<b>ART &amp; CULTURE</b>						
1.	Inter State exchange of cultural troupes	75:25	..	1.92	..	..	..
2.	Operation of Antiquities & Art Treasure Act, L/NRSE.	100%	—	0.20	—	—	—
1.	Chulla	100%	—	2.74	0.18	5.00	0.50
2.	Bio-Gas Construction Training Programme	100%	—	0.46	0.18	1.00	0.20
<b>L.</b>	<b>EDUCATION</b>						
1.	Rural functional Literacy Programme	100%	80.00	53.52	20.00	120.00	25.00
2.	Educational Technology Programme	100%	10.00	3.40	3.00	50.00	10.00
3.	Rural Talented Children	100%	2.00	0.49	0.47	20.00	4.00
4.	Hindi Scholarships	100%	0.15	1.54	0.03	5.00	1.00
5.	Appointment of Hindi Teachers in Non-Hindi speaking States	100%	30.00	6.95	20.00	500.00	50.00
6.	Scheduled Caste Girls Hostels	50:50%	10.00	7.67	5.00	150.00	25.00
7.	Scheduled Tribe Girls Hostels	50:50%	15.00	8.81	5.00	50.00	10.00
8.	Construction of Toilets Under UNICEF	50:50%	—	1.34	5.00	20.00	5.00
9.	Stipend & Clothing to Tibetan Refugee Children of Enchey School	100%	—	4.07	2.45	30.00	5.00

**DRAFT EIGHTH FIVE YEAR PLAN ( 1990-95 ) AND ANNUAL PLAN -1990-91**  
**CENTRALLY SPONSORED SCHEMES: OUTLAY AND EXPENDITURE**

Statement GN-6

Sl. No.	Name of the Scheme	Pattern of sharing Expenditure	Seventh plan 1985-90 Outlay	Actual Expenditure 1985-86 to 1988-89	Annual Plan 1989-90 Approved outlay	Eighth Five Year plan 1990-95 proposed outlay	Annual Plan 1990-91 Proposed Outlay
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
10.	Other Schemes Funded by						
a)	UNICEF	100%	—	2.45	3.00	100.00	20.00
b)	NCERT	100%	—	6.17	5.00	50.00	5.00
11.	Integrated Education	100%	—	—	1.00	10.00	1.00
12.	Mass Orientation of School Teachers	100%	—	—	2.00	10.00	2.00
13.	Improvement of Science Teaching	100%	—	—	1.00	5.00	1.00
14.	Re-imbusement of Tution Fees	100%	—	—	0.30	2.00	0.50
15.	Upgradation of Merit of SC/ST Students	100%	—	—	1.00	10.00	2.00
16.	Computer Literacy in Schools	100%	—	0.34	0.30	5.00	1.00
17.	Post Literacy of Follow-up Programme	100%	—	0.02	1.00	10.00	2.00
18.	Sanskrit Education	67:33%	—	—	1.00	10.00	1.50
19.	Non-formal Education	67:33%	—	—	5.00	50.00	7.00
20.	Vocationalisation of Education	100%	—	—	10.00	300.00	25.00
21.	Operation Blackboard under NPE	100%	—	41.57	18.00	50.00	10.00
22.	DIET under NPE	100%	—	—	71.70	100.00	20.00
	Total-General Education		—	138.34	181.25	1657.00	233.00
23.	Regular NSS Activities	100%	0.15	2.31	1.16	30.00	3.00
24.	Indoor Stadium & Swimming Pool at White Hall	100%	—	12.50	12.50	—	—
25.	Development of Play-Fields	75:25%	50.00	6.79	15.00	100.00	20.00
26.	Constructic n of Swimming Pool	100%	—	—	11.00	50.00	10.00
27.	Development of Paljor Stadium	100%	—	2.79	60.00	—	—
28.	Improvement of Indoor Gymnasium	100%	40.00	2.55	5.00	—	—
29.	Sports Equipments	100%	—	6.46	5.00	50.00	10.00
30.	Schemes Funded by Sports Authority of India (SAI)	100%	—	1.21	7.00	50.00	10.00
31.	Development of White Hall Sports Complex	75:25%	—	—	25.00	—	—
32.	Multipurpose Indoor Gymnasium	100%	—	—	50.00	100.00	20.00
33.	Development of Youth Hostel	100%	—	—	24.00	60.00	15.00
	Total--Sports sector			34.61	215.66	440.00	88.00

DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN - 1990 - 91  
20 POINT PROGRAMME : OUTLAY AND EXPENDITURE

Statement TPP-1

(Rs. in lakhs)

Point No.	Item	Seventh Plan out- lay 1985-90	Annual Plan 1985-86 to 188-89 Expendi- ture	Annual Plan 1989-90 outlay	Proposed Outlay	
					Eighth Plan 1990-95	Annual Plan 1990-95
(1)	(2)	(3)	(4)	(5)	(6)	(7)
01	<b>ATTACK ON RURAL POVERTY</b>					
a)	IRDP	100.00	81.40	20.00	100.00	20.00
b)	NREP	90.00	98.75	35.00	PROGRAMME DISCONTINUED	
c)	Jawar Rejgar Yojana			50.00	250.00	100.00
d)	Village & Small Industries	325.00	291.17	100.80	912.50	175.00
e)	Panchayats	75.00	89.38	14.00	800.00	174.00
02	<b>STRATEGY FOR RAINFED AGRICULTURE</b>					
	<b>Watershed Development</b>					
a)	Land Development	..	7.60	5.00	27.50	5.50
b)	Distribution of improved agricul- tural implements	..	1.60	1.60	10.00	1.80
c)	Distribution of high yielding seeds	..	12.40	10.00	60.00	10.00
	<b>Table lands</b>					
a)	Distribution of fertilisers	..	8.00	..	60.00	10.50
b)	Distribution of high yielding Seeds	..	20.00	..	120.00	20.00
03	<b>BETTER USE OF IRRIGATION WATER</b>					
a)	Major & Medium Irrigation	..	..	..	..	..
b)	Minor Irrigation	1000.00	692.78	200.00	1065.00	190.00
c)	Flood Control	105.00	76.94	25.00	150.00	25.00
d)	Command Area Development	75.00	46.00	15.00	75.00	15.00
04	<b>BIGGER HARVESTS</b>					
a)	Rice Production	..	17.00	8.00	50.00	9.00
b)	Oilseeds Production	..	18.93	8.00	50.00	9.00
c)	Pulses Production	..	19.71	8.00	50.00	9.00
	<b>Horticulture</b>					
i)	Production of fruits	..	55.00	24.00	150.00	25.00
ii)	Production of Vegetables	..	16.00	9.00	52.50	10.00
d)	Storage and Warehousing	45.00	37.38	11.50	75.00	12.00
e)	Agricultural Marketing	60.00	37.69	14.50	75.00	15.00
f)	Animal Husbandry & Dairy	1006.00	734.87	240.00	1705.00	264.00
g)	Fisheries	120.00	66.06	20.00	126.00	22.00
h)	Co-operation	200.00	160.61	47.50	365.00	58.00

DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN (1990-91)  
 TWENTY POINT PROGRAMME - OUTLAY AND EXPENDITURE

Statement: TPP-1

(Rs. in Lakhs)

Point No.	Item	Seventh Plan Outlay 1985-90	Annual Plan 1985-86 to 1988-89 Expenditure	Annual Plan 1989-90 Outlay	Proposed Outlay	
					Eighth Plan 1990-95	Annual Plan 1990-91
(1)	(2)	(3)	(4)	(5)	(6)	(7)
05	ENFORCEMENT OF LAND REFORMS	120.00	93.26	24.00	55.00	9.00
06	SPECIAL PROGRAMMES FOR RURAL LABOUR		N O T A P P L I C A B L E			
07	CLEAN DRINKING WATER					
	a) Rural Water Supply programme (state Sector)	850.00	1060.57	360.00	1200.00	350.00
	b) Rural Sanitation	..	40.60	10.00	135.00	35.00
08	HEALTH FOR ALL					
	a) Rural Health					
	i) Primary Health Sub-centres	85.00	7.39	1.50	370.00	39.00
	ii) Primary Health Centre / C H C	115.00	13.64	3.50	207.50	64.00
	b) Family welfare	..	247.09	86.68	460.00	90.00
	c) Prevention of Communicable disease ..	..	198.13	63.22	150.00	35.00
09	TWO CHILD NORM					
	a) Maternity & Child health	..	247.09	86.68	460.00	90.00
	b) ICDS	..	120.24	44.20	125.00	50.00
	c) Nutrition	270.00	170.00	42.75	604.00	91.00
10	EXPANSION OF EDUCATION					
	a) General Education					
	i) Elementary Education	1274.00	1617.80	538.00	2550.00	400.00
	ii) Adult Education	50.00	12.45	10.00	50.00	8.00
	b) Technical Education (Special Teachers) Training Programme,	40.00	9.09	3.25	50.00	5.00
	c) Art and Culture	160.00	202.43	90.00	507.50	80.00
11.	JUSTICE TO SC & STS					
	a) Programme for welfare of SCS	50.00	48.40	13.50	140.00	26.30
	b) Programme for Welfare of STS	70.00	67.04	22.50	233.50	44.70
12	EQUALITY FOR WOMEN					
	a) Women Welfare (RFLP)	80.00	53.52	20.00	120.00	25.00
13	NEW OPPORTUNITIES FOR YOUTH					
	Youth Welfare and Sports	140.00	108.97	39.00	515.00	60.00

## DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN 1990-91

Statement TPP-1

## TWENTY POINT PROGRAMME : OUTLAY AND EXPENDITURE (Rs. in lakhs)

Point No.	Item	Seventh Plan Outlay 1985-90	Annual Plan 1985-86 to 1988-89 Expenditure	Annual Plan 1989-90 Outlay	Proposed Outlay	
					Eighth plan 1990-95	Annual Plan 1990-91
(1)	(2)	(3)	(4)	(5)	(6)	(7)
14	HOUSING FOR THE PEOPLE					
	Indira Awas Yojana	..	204.73	22.80	180.00	37.50
	House Construction Assistance (Social Housing for EWS)	60.00	35.41	10.00	100.00	15.00
15	SLUM CLEARANCE (ENVIRONMENTAL IMPROVEMENT OF SLUMS)	20.00	24.15	6.00	50.00	10.00
16	NEW STRATEGY FOR FORESTRY					
	Forestry (Social Forestry)	330.00	..	..	575.00	71.00
17	CONCERN FOR THE CONSUMER					
	Fair Price Shop	...	..	N	I	L
18	ENERGY FOR VILLAGES					
a)	Rural Electrification	1079.00	1346.78	220.00	2022.00	400.00
b)	National Programme for Bio-gas Development	17.50	17.14	6.00	20.00	5.00
c)	Integrated Rural Energy Programme	50.00	28.53	16.00	100.00	20.00

DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN 1990-91  
 TWENTY POINT PROGRAMME : PHYSICAL TARGETS &  
 ACHIEVEMENTS

STATEMENT TPP-2

Sl. No.	Item	Unit	7th Plan (1985-90) Target	Achievements 1985-86 to 1988-89	Anticipated achievements 1989-90	Eighth Plan Proposed targets 1990-95	Annual Plan 1990-91 Proposed target
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

## 01 ATTACK ON RURAL POVERTY

a) IRDP-	i) Old Beneficiaries assisted	No.	20000	11000	2000	12500	2500
	ii) New Beneficiaries assisted	No.	—	—	—	—	—
TRYSEM	i) Youths trained	No.	1600	867	160	1350	270
	ii) Youths self employment	No.	—	—	—	—	—
b) NREP	Employment Generated	Lakh mandays	14.00	14.6	—	—	—
c) RLEGP	Employed Generated	“	—	8.91	2.85	—	—
d) Jawahar Rojgar Yojana		“	—	—	5.30	30.00	6.00
	i) Handloom-Meters of cloth to be produced	—	—	—	—	—	—
	ii) Powerlooms-Meters of cloth to be produced	—	—	—	—	—	—
	iii) Handicrafts-value of Production	Rs. lakh	75.00	68.00	25.00	150.00	25.00
	iv) Khadi-meters of cloth to be produced	“	45.00	19.89	8.50	50.00	7.50
	v) Village Industries-value of production	“	192.00	51.81	21.50	300.00	35.00
	vi) Sericulture-production of raw silk	—	—	—	—	—	—
	vii) Coir Industries-value of production.	—	—	—	—	—	—
	viii) Small scale industries- No. of additional units to be set up and total value of annual production	No.	300	115.00	40.00	500.00	50.00
e)	<b>Panchayats</b>						
	No. where election will be held during the year						
	i) Gram Panchayat	—	—	—	—	—	—



DRAFT EIGHTH FIVE YEAR PLAN (1990-91) AND ANNUAL PLAN 1990-91  
 TWENTY POINT PROGRAMME: PHYSICAL TARGETS & ACHIEVEMENTS

STATEMENT TPP-2

Point No.	Item	Unit	Seventh Plan (1985-90) Target	Achievements 1985-86 to 1988-89	Anticipated achievements 1989-90	Eighth Plan proposed targets 1990-95	Annual Plan 1990-91 proposed targets
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	ii) Panchayat Samitis						
	iii) Zila Parishad						
	Elections were held in 1988						
02	<b>STRATEGY FOR RAINFED AGRICULTURE WATERSHED DEVELOPMENT</b>						
	a) No. of watersheds to take/taken up	No.	20	16	20	20	4
	b) Cultivable area covered in selected micro water sheds	ooo Hec	20	16	20	20	4
	c) Land Development	"	0.60	1.20	1.50	2.00	0.40
	d) Distribution of seed-cum-fertilisers drill	No.		10	20	20	5
	e) Distribution of other improved agricultural tools and implements	No.	9000	7000	19,000	10,000	2,000
	<b>Table lands</b>						
	a) Distribution of fertilisers	tonnes	1500	650	700	1000	200
	b) Distribution of High yielding seeds	"	500	100	300	500	300
	<b>Area to be covered with</b>						
	1) Field Channel	Hectare	—				
	2) Land levelling	—					
	3) Warebandi	—					
	4) Field drains catchment Area treated	—	—				
	1. Soil conservation	Hect.	7200	5313	1450	6500	1000
	2. Afforestation	"	5000	5200	1270	11000	1700
03	<b>BETTER USE OF IRRIGATION WATER</b>						
	i) Irrigation Potential created		8000	5313	1450	6500	1000
	ii) Utilisation of potential	"	6000	7612	1250	6000	9000

DRAFT EIGHTH FIVE YEAR PLAN (1990-95) AND ANNUAL PLAN 1990-91  
 TWENTY POINT PROGRAMME: PHYSICAL TARGETS & ACHIEVEMENTS

STATEMENT TPP-2

Point No.	Item	Unit	Seventh Plan (1985-90) Target	Achievement 1985-86 to 1988-89	Anticipated achievement 1989-90	Eighth Plan proposed targets 1990-95	Annual Plan 1990-91 proposed target
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
04	<b>BIGGER HARVEST:</b>						
	a) Rice Production	Tonnes	20	18.60	20.00	28.00	22.00
	b) Oilseeds Production	"	16	13.00	13.50	20.00	14.00
	c) Pulses production	"	16	13.00	14.30	18.00	15.00
	d) Production: i) Fruits	"	24.08	21.00	24.00	36.00	25.00
	ii) Vegetables	"	30.00	32.00	34.00	45.00	35.00
	e) Creation of addl. storage capacity	—	14.00	—	—	—	—
	f) Regulated Markets	—	—	—	—	—	—
	g) Marketing of agricultural produce by co-operative Societies	Rs. lakhs	—	76.19	55.00	650.00	100.00
	h) Milk Production	000 tonnes	27.00	25.00	27.00	36.00	20.00
	i) Egg Production	Millions	6.30	11.50	12.00	18.00	13.00
	j) Wool Production	Lakhs	0.30	0.28	0.30	0.35	0.31
	k) Production of Inland fish	tonnes	100	80	85	150	100
	l) Co-operatives :-						
	i) No. to be revitalised	No.	—	—	—	—	—
	ii) New Cooperative to be set	No.	100	29	8	20	—
05	<b>ENFORCEMENT OF LAND REFORM</b>						
	a) Compilation of land records	No. of Village	—	—	—	—	—
	i) Area for which land records will be compiled	"	411	411	—	—	—
	ii) Area for which L.R. to be updated	"	411	411	—	—	—
	b) Implementation of Agriculture Land Ceilings		Not applicable				

## CORRIGENDUM

1. Page 2 para 4 last line "1978" to be read as "1987-88"
2. Page 36 para XV "Agriculture Marketing and Quality Control" Annual Plan 1990-91 outlay to be read as Rs. 15 lakhs.
3. Page 42 Capital outlay under Column (7) & (9) against the Scheme of "Soil Conservation outside Watershed Areas" to be deleted.
4. Page 46 Annual Plan 1990-91 outlay for scheme of Veterinary Services & Animal Health to be read as Rs. 47 lakhs.
5. Page 49 under para (IV) on "Poultry Development outlay for VIIIth Plan and Annual Plan to be read as Rs. 250 lakhs and Rs. 38 lakhs respectively.
6. Page 53 para (VII) on scheme of Animal Husbandry Statistics the Annual Plan Outlay for 1990-91 to be read as Rs. 4 lakhs.
7. Page 58 the Annual Plan 1990-91 outlay on scheme of assistance to Animal Husbandry Cooperatives under para (XV) to be read as Rs. 4 lakhs. Also under para (XVI) on scheme of Investment in Public Sector Undertakings the Annual Plan 1990-91 outlay to be read as Rs. 7 lakhs instead of Rs. 15 lakhs.
8. Page 78 under para 14 on scheme of Assistance to other Cooperative the Annual Plan outlay be read as Rs. 11 lakhs.
9. Page 80, the Annual Plan 1990-91 proposed outlay under column (8) against scheme No. 108 (iii) to be read as Rs. 4.00 lakhs.
10. Page 83, Outlay proposed for the VIII Plan and Annual Plan 1990-91 under Column (6) and (8) for scheme of Jawahar Rojghar Yojana to be read as Rs. 500 lakhs and Rs. 100 lakhs respectively. In the same page the grand total figure under Column (6) and (8) to be read as Rs. 750 lakhs and Rs. 150 lakhs respectively.
11. Page 99 the total Capital outlay against item (B) Transmission and Distribution under Column (7) to be read as Rs. 2430 lakhs.
12. Page 148, Annual Plan 1990-91 proposed outlay and Capital content under Column (8) and (9) against scheme No. 201 (111) be read as Rs. 250 lakhs. In the same page the total figure under Column (8) and (9) be read as Rs. 366 lakhs and Rs. 349 lakhs respectively.
13. Page 160, Proposed Outlays for the VIIIth Plan and 1990-91 Annual Plan under scheme B on "Survey and Statistics" to be read as Rs. 117.50 lakhs and Rs. 18 lakhs respectively.
14. Page 168 read figures under Column (9) against scheme No. 101 as 85 lakhs under Column (6) against scheme No. 800 (i) as 5, lakhs and the grand total outlays under Column (7) and (9) be read as Rs. 640 lakhs and Rs. 93 lakhs respectively.
15. Page 183, under scheme No. 8 on Secondary Education, the Revenue Outlay be read as Rs. 975 lakhs.
16. Page 186, under scheme No. 10 on scheme of vocationalisation of Education the total outlay be read as Rs. 150 lakhs.
17. Page 196, the figure under Column (6) against item (iii) be read as Rs. 50 lakhs.
18. Page 214 the total figure under Column (9) be read as Rs. 220 lakhs.
19. Page 216 the figure indicating the 1990-91 Annual Plan proposed outlay vide last line of para A (i) be read as Rs. 5 lakhs. In para A (ii) the 1990-91 Annual Plan figure be read as Rs. 180 lakhs instead of Rs. 2350 lakhs. The figures appearing in the third last the and last line of the second paragraph under scheme No. A (ii) be read as Rs. 150 lakhs and Rs. 30 lakhs respectively. In the same page under para A (iii) the Annual Plan 1990-91 proposed outlay be read as Rs. 65 lakhs.

20. Page 217, the figure of Rs. 10 lakhs in the Sixth line under para No. A (III) be read as Rs. 35 lakhs. Also the Annual Plan 1990-91 outlay proposed in para B (I) on Rural Water Supply Scheme be read as Rs. 305 lakhs.
21. Page 218, the figure indicating the 1990-91 Annual Plan outlay in the 12th line under para be read as Rs. 305 lakhs.
22. Page 220 figures under Column (8) and (9) to be read as below.
- |                    |        |        |
|--------------------|--------|--------|
| Item No. 101 :     | 300.00 | 235.00 |
| Item No. 101 (i)   | 180.00 | 180.00 |
| Item No. 101 (iii) | 65.00  | —      |
| Item No. 102       | 305.00 | 305.00 |
| Total :            | 695.00 | 610.00 |
23. Page 230, the total outlay proposed for 1990-91 under Column (8) to be read as Rs. 16.00 lakhs.
24. Page 245, the Eight Plan outlay for scheme No. (2) Machinery and Equipment to be read as Rs. 57 lakhs.
25. Page 247 the figure under Column (6) against item (ii) be read as Rs. 57 lakhs.
26. Page 275 the figures under Column (8) and (9) against scheme Sl. No. 6 be read as Rs. 305 lakhs and the total figure under these two columns be read as Rs. 2007.50 lakhs and Rs. 1571.00 lakhs respectively.